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ABSTRACT

Essays on the visually handicapped are concerned with congenital rubella, an evaluation of multiply handicapped children, the use and abuse of the IQ, visual perception dysfunction, spatial perceptions in the partially sighted, programs in daily living skills, sex education needs, and physical activity as an enhancement of functioning. Other articles discussed deal with physical activity to stimulate learning, a report on listening research, library needs, instructional materials reference center, agency cooperation, and research on sex education. Also included are the following association reports: report from the president, braille authority, amendments to the constitution, necrology, the nominating committee, and the financial report and 1968 budget. (JM)

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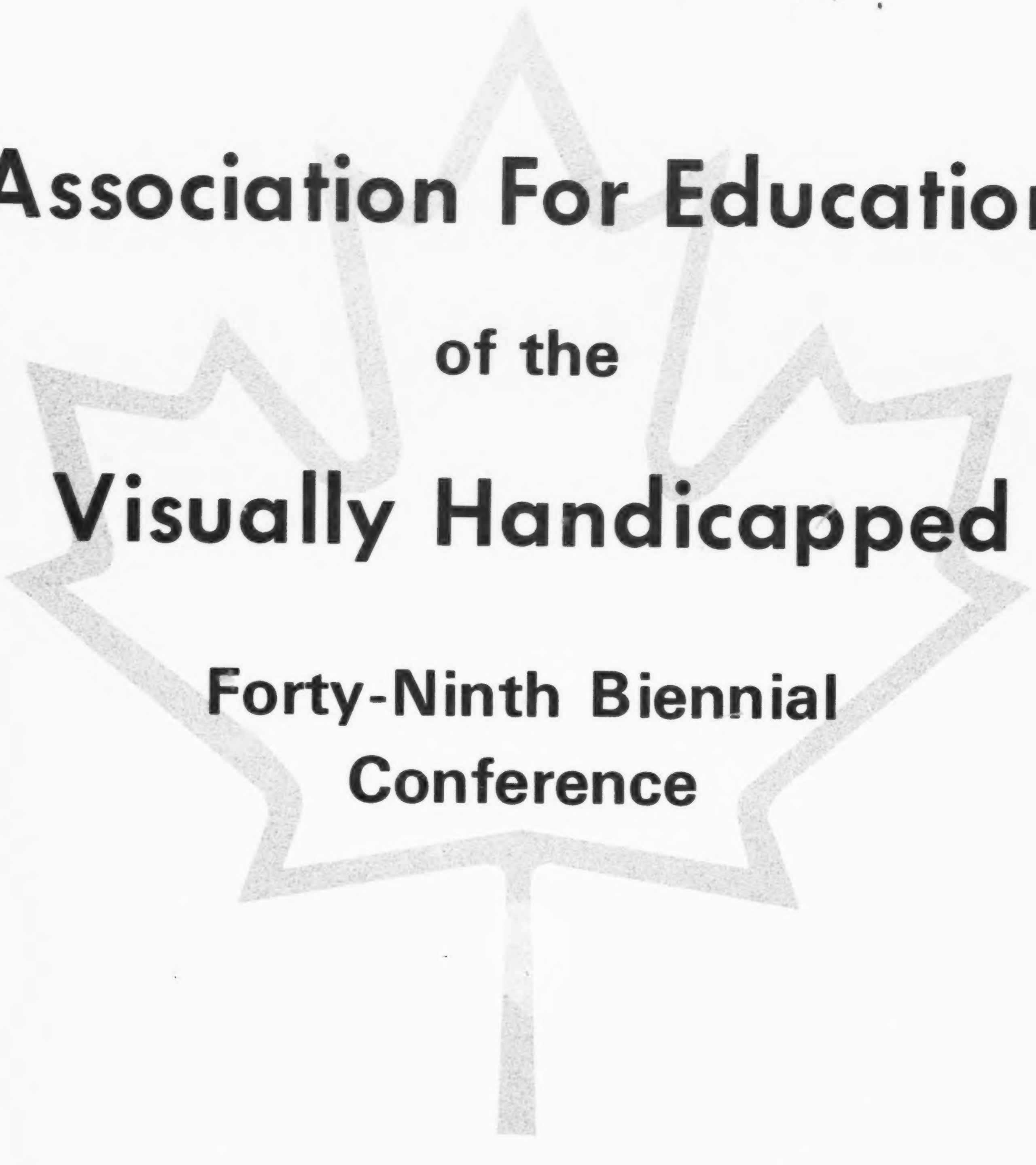

Association For Education of the Visually Handicapped

Forty-Ninth Biennial Conference

JUNE 1968
TORONTO, CANADA

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ASSOCIATION for EDUCATION of the VISUALLY HANDICAPPED

1604 Spruce Street
Philadelphia, Pennsylvania 19103

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ASSOCIATION FOR EDUCATION OF THE VISUALLY HANDICAPPED

First known as the Instructors of the Blind, and later as the American Association of Instructors of the Blind, AEVH began in 1853 with a national meeting of superintendents of the sixteen residential schools for the blind. Conventions have been held biennially except those years when national emergencies prevented. The name of the organization was changed, at the 1968 convention, to Association for Education of the Visually Handicapped.

In 1952 the Workshop method of national conventions was adopted and the membership was opened to all who were interested in improving the educational opportunities of all visually handicapped children. In the Workshops, educators are able to define problems and work actively toward their solutions. Workshops elect officers and work continues between conventions by mail and through regional meetings. Student chapters may be formed at colleges and universities where a number of interested persons are training for work with visually handicapped children.

AEVH publishes a newsletter called the FOUNTAINHEAD, its conference proceedings, and provides the professional journal, EDUCATION OF THE VISUALLY HANDICAPPED for its members. The organization also participates actively in teacher and houseparent certification, training institutes, the development of special standards, the encouragement and report of research in the field, and cooperation with national and international agencies and organizations interested in the education of visually handicapped children and youth.

AEVH is affiliated with The Council For Exceptional Children, a Department of the National Education Association.

For further information, write AEVH Executive Secretary,
1604 Spruce Street, Philadelphia, Pennsylvania 19103.

MEETINGS

The following is a list of the conventions of the American Instructors of the Blind (1853-1871) and the American Association of Instructors of the Blind (1872-1966):

1st Meeting: August 16-18, 1853 at New York, New York
2nd Meeting: August 8-10, 1871 at Indianapolis, Indiana
3rd Meeting: August 20-22, 1872 at Boston, Massachusetts
4th Meeting: August 18-20, 1874 at Batavia, New York
5th Meeting: August 15-17, 1876 at Philadelphia, Pennsylvania
6th Meeting: August 21-23, 1878 at Columbus, Ohio
7th Meeting: August 17-19, 1880 at Louisville, Kentucky
8th Meeting: August 15-17, 1882 at Janesville, Wisconsin
9th Meeting: August 19-21, 1884 at St. Louis, Missouri
10th Meeting: July 6-8, 1886 at New York, New York
11th Meeting: July 10-12, 1888 at Baltimore, Maryland
12th Meeting: July 15-17, 1890 at Jacksonville, Illinois
13th Meeting: July 5-7, 1892 at Brantford, Ontario, Canada
14th Meeting: July 17-19, 1894 at Chautaugua, New York
15th Meeting: July 14-16, 1896 at Pittsburgh, Pennsylvania
16th Meeting: July 12-14, 1898 at Lansing, Michigan
17th Meeting: July 9-11, 1902 at Raleigh, North Carolina
18th Meeting: July 20-22, 1904 at St. Louis, Missouri
19th Meeting: August 21-23, 1906 at Portland, Oregon, at Salem, Oregon and at Vancouver, Washington
20th Meeting: July 14-16, 1908 at Indianapolis, Indiana
21st Meeting: June 28-July 1, 1910 at Little Rock, Arkansas
22nd Meeting: June 25-28, 1912 at Pittsburgh, Pennsylvania
23rd Meeting: June 28-30, 1915 at Berkeley, California
24th Meeting: June 4-7, 1916 at Halifax, Nova Scotia, Canada
25th Meeting: June 24-28, 1918 at Colorado Springs, Colorado
26th Meeting: June 21-25, 1920 at Overlea, Maryland
27th Meeting: June 27-30, 1922 at Austin, Texas
28th Meeting: June 23-27, 1924 at Watertown, Massachusetts
29th Meeting: June 21-25, 1926 at Nashville, Tennessee
30th Meeting: June 25-29, 1928 at Faribault, Minnesota

31st Meeting: June 23-27, 1930 at Vancouver, Washington
32nd Meeting: June 27-July 1, 1932 at New York, New York
33rd Meeting: June 25-28, 1934 at St. Louis, Missouri
34th Meeting: June 22-25, 1936 at Raleigh, North Carolina
35th Meeting: June 27-30, 1938 at Lansing, Michigan
36th Meeting: June 24-28, 1940 at Pittsburgh, Pennsylvania
37th Meeting: June 26-30, 1944 at Little Rock, Arkansas
38th Meeting: June 24-28, 1946 at Watertown, Massachusetts
39th Meeting: June 21-25, 1948 at Austin, Texas
40th Meeting: June 26-30, 1950 at Philadelphia, Pennsylvania
41st Meeting: June 29-July 3, 1952 at Louisville, Kentucky
42nd Meeting: June 27-July 1, 1954 at Batavia, New York
43rd Meeting: June 24-28, 1957 at Worthington, Columbus, Ohio
44th Meeting: June 22-26, 1958 at Vancouver, Washington
45th Meeting: June 26-30, 1960 at Donelson, Tennessee
46th Meeting: June 28-July 2, 1962 at Miami Beach, Florida
47th Meeting: June 21-25, 1964 at Watertown, Massachusetts
48th Meeting: June 26-30, 1966 at Salt Lake City, Utah
49th Meeting: June 23-27, 1968 at Toronto, Ontario, Canada

Copies of Convention Proceedings for many of the above meetings may be purchased by inquiry to the office of the Association for Education of the Visually Handicapped, 1604 Spruce Street, Philadelphia, Pennsylvania 19103

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CONGENITAL RUBELLA - BAYLOR STUDY

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Because of the similarity of the names, a good bit of confusion exists about rubella and rubeola. These are the medical terms for two different diseases which are commonly referred to as measles. Rubeola is characterized by high fever, cough, rhinorrhea, conjunctivitis and generalized rash. It is also called "eight day measles." Rubella is a disease characterized by mild constitutional symptoms, enlargement of lymph nodes, and a generalized rash. Because the rash usually lasts only three days, it is also called "three day measles." It is this latter disease, when it occurs in pregnant females, that can lead to the congenital syndrome to be discussed.

Sir Norman Gregg, an Australian ophthalmologist, first described the association of congenital eye defects, congenital heart disease, deafness and mental retardation with maternal rubella. His report appeared in 1941, and by 1943 it had been firmly established that abnormalities occurred in infants whose mothers had rubella during the early months of pregnancy, usually the first trimester.

Until the epidemic of 1963-65, it was considered that the defects present in these infants were static and represented the effects of a disease that was no longer active. However, as infants born to mothers who had rubella during this epidemic were studied, it became apparent that congenital rubella could be an active and continuing infection after birth.

It has been estimated that 20-30,000 infants were affected by the 1963-65 epidemic. (The mortality rate is approximately 30%. If this estimate is correct, there are 14-21,000 survivors.)

A large number of such infants was born in the Houston area following this epidemic and a study team was organized at Baylor University College of Medicine to investigate these new findings. In January 1965 a special Rubella Follow-up Clinic was set up at Texas Children's Hospital to study and care for these children.

During the next few months, the original syndrome described by Gregg, Swan, and others in the early 40's, was expanded to include a much larger number of findings and became known as the "Expanded Rubella Syndrome." These findings included petechiae or purpura, thrombocytopenia, anemia, enlargement of the liver and spleen, jaundice, pneumonia, encephalitis, bone lesions, skin manifestations, diarrhea, kidney abnormalities, growth retardation, immunologic abnormalities, as well as other apparently lesser anomalies.

The following table summarizes the outcome at 18 months of the first 100 infants with congenital rubella cared for in the Rubella Follow-up Clinic at Texas Children's Hospital:

Congenital Rubella: 18 Month Outcome

Expired	20
Lost to Study	16
Survivors	64
Sensory or neurologic abnormalities	60
No sensory or neurologic abnormalities	4

The types of lesions present in these children were as follows:

Bilateral cataracts	18
Unilateral cataracts	19
Glaucoma	1
Chorioretinitis	20

The results of hearing evaluations of the 64 survivors disclosed that 28% had no detectable hearing loss, 45% had definite loss, and 27% showed poor speech indicating possible hearing problems.

Congenital heart lesions were present in 69 of the 100, but many of these were mild pulmonary branch stenosis, not limiting activity.

As the survivors grew older, the problems changed from those of an acute illness to those of a chronic, handicapping disease. The attention then shifted to proper long term follow-up and the use of prostheses and special training techniques. In Houston, excellent cooperation was obtained from the Houston Speech and Hearing Center, the Cerebral Palsy Treatment Center, the Lighthouse for the Blind, the Houston Council for Retarded Children, and the Houston Child and Family Service Center. These facilities evaluated children with special problems in each of the agencies' fields of special competence. The agency that could offer the most to a particular child enrolled him in its program. In many cases, a child attended sessions in two or more of the institutions. Periodic meetings were held between members of the Rubella Clinic staff and representatives from each of the cooperating agencies to discuss specific children and their problems. Although one agency had primary responsibility for a child's immediate problem, the other agencies were consulted and their recommendations solicited in regard to other problems that the child might have in their special fields of competence. It was realized early that the impact of these children on the family was great, and during this period of time the Child and Family Service Center was holding periodic parent group meetings to discuss the common problems presented by these children to their families. At the same time that the children were attending various programs in these agencies, they were followed periodically in the Rubella Clinic and as rapidly as handicapping lesions were found and the child's physical condition permitted, they were surgically repaired, or prostheses applied. The Texas Health Department was most cooperative in providing hearing aids for most of the children in the Clinic.

During this period it became evident that these children could remain infectious as long as 18 months of age. Virus studies done through the Clinic disclosed that children may shed virus for months and that during this period of time they were infectious and could give rubella to susceptible people. During this period of time it was necessary to isolate these children in each of the agencies and in the Clinic so that they would not expose pregnant or potentially pregnant female workers.

It is obvious that the parents of the children with several or multi-handicaps were continuously on the go. It had long been realized that our plan was not ideal and that it was necessary to centralize the care of the multi-handicapped patients. In the spring and early summer of 1967, when these children were about 2½ years of age, a multidisciplinary examination was conducted by the staff of the Child Development Clinic of Texas Children's Hospital. This examination was conducted by physicians, occupational therapists, physical therapists, psychologists, social workers, public health nurses and speech therapists. A group of 69 children was examined. From this group of 69, 20 children were selected by the multidisciplinary staff as needing a multi-handicap program. Such a program was designed under the direction of Dr. Gloria Cochran, the Associate Director of the Child Development Clinic, and instituted at the Texas Institute of Rehabilitation and Research in October, 1967. These children received attention in the areas of speech training, physical therapy, occupational therapy, physical medicine, psychological evaluation, social service, orthopedics, and other fields as indicated. Weekly staffing sessions are held on these children and a composite decision about the child's progress and needs reached by the group.

Although no two children in the multi-handicap group were exactly alike, the combination of lesions most frequently seen was visual defects due to cataracts, or glaucoma, hearing loss due to neurosensory impairment, and neuro-muscular problems ranging from delayed motor development to cerebral palsy.

Many of the children also had congenital heart disease, but none had a limitation of activity resulting from the heart lesions.

Gesell psychological testing has been done by Dr. Willie Verniaud. Eighty-three children have had Gesell psychological tests at 36 months of age. Others have had only two or one test. The results of these tests, based on performance at 36 months indicate that a large number of the children tested achieved 2/3 expected age (24 months) or above in motor behavior, adaptive behavior and personal-social behavior. It was noted, however, that a smaller portion of the children achieved 2/3 age level in language behavior and in fact, not a single child tested achieved the three year age level. We do not have an explanation for this finding at the present time, but undiagnosed hearing problems would be a good possibility. When the results are expressed as a developmental quotient they indicate that 60 of the 83 children are functioning in a normal or near normal range. Most of the children in the normal or near normal group have only hearing loss. All of the children in the lower developmental quotient ranges have two or more handicaps. Analysis of the lesions present in these 83 children who have reached 3 years of age disclosed the following:

Visual problems	6
Hearing problems	28
Motor	3
Vision and hearing	5
Vision and motor	10
Vision, hearing, and motor	19
Hearing and motor	8
None	4

The latest tabulation of common handicaps present in our Clinic population based on an analysis of 146 patients indicates:

Hearing impairment	70
Visual handicap	39
Motor Handicap	50
Hearing and visual handicaps	20
Normal	17

Some of these children have combined lesions.

In summary, then, congenital rubella can begin as a devastating, acute, life-threatening illness. It can be chronic, presenting problems for the family, the individual patient and the community. It can result in a variety of single and multiple handicaps. In general, however, the course for the majority of congenital rubella patients is one of steady improvement. With early detection, proper medical and surgical care, and early institution of prosthetic devices, habilitation and educational programs, the outlook for these children is far from bleak.

Financial support for the study came from the following public and private agencies: Children's Bureau, U. S. Public Health Service, Farish Fund, John A. Hartford Foundation, Texas Children's Hospital, and Baylor University College of Medicine.

EVALUATION OF MULTI-HANDICAPPED DEAF-BLIND CHILDREN

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The preliminary results of a research project to identify terminological problems in the description of multi-handicapped deaf-blind children were briefly inspected to suggest the need for expanded dialogue between teachers of such children and evaluation center personnel in both medical and behavioral sciences.

The following specific citations were given to indicate the need for observational data which might be translated into behavior modifications and teaching guide lines as opposed to that type of terminology which is descriptive or removed to a level of only inferential relation to behavior.

1. Forty-one per cent of the terms used by the pediatrician are concerned with tests of physical status and health while only 15% relate to behavioral and functional skills.

2. Similarly, 63% of the neurological terminology is concerned with physical status and health and 18% is concerned with functional skills and behavioral characteristics.

3. Seventy-four per cent of the opthalmological terminology describes physical health while only 3% relates to behavior-visual or general.

4. Contrary to the above trends, 61% of the psychological report terminology was concerned with non-psychometric description of the child while only 15% of the terms related to formal psychometric tests.

5. Similarly, 41% of the audiometric terms related to observational judgement while only 32% referred to formal test procedures.

6. With respect to all of the above, it is disturbing that the mean incidence of a given term is in no professional area generally, nor in no category within a professional report as great as four.

7. Although there are numerous other specific areas of concern developed by these data, the above strongly suggested the need for more standardized observational procedures. For example, the two most consistent entries in the psychological report were (1) that the mother was the informant and (2) commentary on toilet training. Surely, other aspects of child description are of equal or greater importance for educational planning.

THE USE AND ABUSE OF THE I.Q.

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When addressing an educational group it is not necessary to define the term Intelligence Quotient, or I.Q. You have been living with the term for all of your educational experience. Many may believe that the expression originated with Alfred Binet, the father of "intelligence" testing. In truth, his tests produced only a "mental age." The Intelligence Quotient was suggested in 1912 by Kuhlman and by Stern, and the concept was adopted by Terman in the 1916 Stanford Revision of the Binet-Simon tests.

Terman's I.Q. was the ratio of mental age to chronological age, later multiplied by the factor of 100 to eliminate the decimal point. Some of the later test producers avoided, or eliminated, the mental age but retained the I.Q. score basing it upon the degree to which the individual's test performance deviated from the average for his age group. In either case, the I.Q. is nothing more, or less, than the numerical score representing an individual's performance on a series of pre-selected tasks that made it possible to compare his attainment with that of other persons of the same age. The tasks were intended to sample intellectual faculties representative of the characteristics involved in the learning process and the resulting I.Q. score was considered to be an index of "general" or "relative" intelligence.

Binet, Terman, and Wechsler, probably the best known producers of intelligence tests, devised their scales for the purpose of classification. Today custom or statute requires that schools classify pupils on the basis of I.Q. In order to classify individuals on the basis of I.Q., it is necessary to assume that the I.Q. is a constant factor; i.e., that the scores of a specific individual on a given test will remain the same through repeated testing at different ages. Another implicit assumption is made that although a given test measures a cluster of different factors the individual performs equally well in the different areas of learning ability. Thus there has evolved through years of usage by educators an unjustified confidence in the ability of the I.Q. to describe an individual's intellectual functioning in a very consistent manner.

It is my intention to illustrate to you that the I.Q. does not describe an individual's mental abilities, and I will demonstrate that an individual's I.Q. does not remain constant. Figure 1 illustrates the manner in which the result of intelligence testing is reported to the teachers and principal of Perkins School for the Blind. The format was devised for use with Wechsler scales in an effort to convey the information provided by the tests. All cases illustrated through Figure 6 are actual and were pulled at random from the file. Figure 1 represents the type of test performance needed if we are to consider the I.Q. as an index of general intelligence. Unfortunately it is the only record of this type in our file on our current student population. It is indeed a rare record.

Figure 2 presents an interesting record. According to the I.Q. of 121 one would expect that the boy possessed superior learning ability. Yet the record shows that his reasoning ability is merely average and that his higher score reflected very superior memory facility. Figures 3 and 4 illustrate very different patterns of learning characteristics with identical and distorted I.Q.'s. The distortions occur because of very superior rote memory, a frequent occurrence among the blind as Hayes, Tillingham and others have reported. The girl reported on Figure 3 is more properly described as possessing average learning ability instead of an I.Q. indication of superior intelligence. The boy in Figure 4 has an interesting scatter from the dull normal to the very superior level. He is more properly a bright normal child who probably has had very limited social experience.

Figure 5 reports a dull normal I.Q. distorted from the borderline level of learning by good rote memory facility. Figure 6 illustrates a spread of function ranging from dull normal to superior that is vastly different from the average I.Q. of 106.

I hope that these figures have described satisfactorily how inadequately the I.Q. describes the performance of an individual on a test of "general" intelligence. While statute may require its use and while an argument may be made for its use in comparing groups of subjects or individuals within groups, the I.Q. does not describe adequately the learning abilities of individuals.

Figure 7 is presented to show that the I.Q. is not constant, in fact the concept has been rejected by many psychologists and educators for many years. The first four cases were selected randomly and they indicate consistent growth of demonstrated ability to learn. As a point of interest, two of the cases are R.L.F.'s and two are blind due to other causes. Case 4 seems to have dropped in performance at age fifteen. However, during that period she was pre-occupied by being the target of a conflict between divorced parents. Following a brief period of supportive therapy she resumed functioning as well as she had earlier.

Case 5 is most interesting because it is a boy who came to Perkins from a state school for the mentally deficient. The first test was administered prior to admission to Perkins by the author. The second test was administered during his third year at the school. This older boy is an omniverous reader with a fantastic memory for meaningful material. Thus he was able to score high using stereotyped responses. Yet he is almost completely incapable of performing verbal reasoning tasks. In this case the I.Q. did not remain constant, but the subject's abilities remained relatively so.

Case 6 is an illustration of deterioration of mental functioning as a result of non-organic factors. This young person lives in a very neurotic household that has grown progressively more unstable with steadily increasing conflict. As a consequence the girl's ability to focus her intellectual talents has decreased in proportion to the increasing disorganization in her home.

In addition to presenting the limitations, the possible inaccuracies and the lack of constancy of the I.Q., the author hopes that these final cases have convinced you of the need for repeated testing in schools and the need for narrative descriptions of testing situations. With only the numerical data in front of you you would not know why the data of cases 4 through 6 look so unusual.

Name	Age	Test	Test Date	IQ
BOY	13-10	W	2/13/68	116

	Meanful Memory	Soc Prob Solving	Non Mean Memory	Arith Reason	Abst Verb Reason	Mean Mem & Verb Reas
Very Superior						
Superior						
Bright Normal	X	X	X	X	X	X
H						
Normal: M						
L						
Dull Normal						
Borderline						
Mentally Def.						

FIGURE 1

Name	Age	Test	Test Date	IQ
BOY	16-6	W	1/11/68	121

	Meanful Memory	Soc Prob Solving	Non Mean Memory	Arith Reason	Abst Verb Reason	Mean Mem & Verb Reas.
Very Superior			X			X
Superior						
Bright Normal	X					
H				X		
Normal: M					X	
L		X				
Dull Normal						
Borderline						
Mentally Def.						

FIGURE 2

GIRL	18-3	W	1/10/68	120
Name	Age	Test	Test Date	IQ

	Meanful Memory	Soc Prob Solving	Non Mean Memory	Arith Reason	Abst Verb Reason	Mean Mem & Verb Reas.
Very Superior			X			
Superior						
Bright Normal		X				
Normal: H					X	X
M	X			X		
L						
Dull Normal						
Borderline						
Mentally Def.						

FIGURE 3

BOY	10-8	WISC	4/2/68	120
Name	Age	Test	Test Date	IQ

	Meanful Memory	Soc Prob Solving	Non Mean Memory	Arith Reason	Abst Verb Reason	Mean Mem & Verb Reas.
Very Superior			X			
Superior				X		
Bright Normal	X				X	
Normal: H						
M						X
L						
Dull Normal		X				
Borderline						
Mentally Def.						

FIGURE 4

Name	Age	Test	Test Date	IQ
GIRL	16-2	W	1/9/68	81

	Meanful Memory	Soc Prob Solving	Non Mean Memory	Arith Reason	Abst Verb Reason	Mean Mem & Verb Reas.
Very Superior						
Superior						
Bright Normal			X			
H						
Normal: M						
L						
Dull Normal	X					X
Borderline		X		X	X	
Mentally Def.						

FIGURE 5

Name	Age	Test	Test Date	IQ
BOY	11-3	WISC	1/18/68	106

	Meanful Memory	Soc Prob Solving	Non Mean Memory	Arith Reason	Abst Verb Reason	Mean Mem & Verb Reas.
Very Superior						
Superior			X	X		
Bright Normal						
H	X					
Normal: M						
L		X				X
Dull Normal					X	
Borderline						
Mentally Def.						

FIGURE 6

Figure 7

Case 1

H.E.J. Boy B.D. 5/10/51

Test Date	C.A.	M.A.	I.Q.	Test
4/13/56	4:11	3:2	64	IHB
1/16/58	6:8	6:6	98	IHB
11/9/60	9:6	9:4	98	IHB
1/8/64	12:8		102	W
5/5/66	14:11		107	W
11/8/67	16:6		119	W

Case 2

B.T. Boy B.D. 2/3/48

Test Date	C.A.	M.A.	I.Q.	Test
9/19/60	12:8		81	W
3/6/62	14:1		91	W
1/5/65	16:11		103	W
11/30/67	19:9		109	W

Case 3

D.V.S.J. Girl B.D. 5/28/52

Test Date	C.A.	M.A.	I.Q.	Test
5/5/59	6:11	6:4	92	IHB
1/12/61	8:7	8:4	95	IHB
1/30/62	9:8	9:2	95	IHB
1/27/65	12:8		108	WISC
1/5/68	15:8		122	W

Case 4

K.J.A. Girl B.D. 1/31/50

Test Date	C.A.	M.A.	I.Q.	Test
7/3/54	4:5	4:10	109	IHB
6/1/56	6:4	7:8	121	IHB
3/3/59	8:1	9:6	118	IHB
1/30/62	11:11		125	WISC
5/12/65	15:4		117	W
9/28/67	17:8		135	W

Case 5

F.J. Boy B.D. 4/13/48

Test Date	C.A.	M.A.	I.Q.	Test
7/11/62	14:3	9:8	70	IHB
1/4/66	17:8		114	W

Case 6

A.P.M. Girl B.D. 7/20/53

Test Date	C.A.	M.A.	I.Q.	Test
4/28/59	5:9	8:10	154	IHB
4/4/62	8:8	12:8	146	IHB
1/28/65	11:6		120	WISC
1/12/67	13:5		99	WISC

THE LOW-VISION CHILD AND VISUAL PERCEPTION DYSFUNCTION

Dr. Louise Sloan

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In the past many children were taught only Braille in school although they could and did learn to read visually at home. It is not easy to predict from one simple test what the child's visual capabilities are. A procedure such as that of Dr. Natalie Barraga, and involving a special method of instruction, insures that the child will make the best use of his vision and also helps to determine whether instruction in print reading should be attempted.

Special optical aids other than correction of refractive error are usually not needed before the child has reached 3rd grade reading level. At this stage a combination of two non-optical methods provides the necessary enlargement of image on retina: (a) use of large visual objects and (b) use of short viewing distance. There is no great objection to large print at this stage of learning, and close viewing distance is not a problem because children aged nine and younger can usually sustain accommodation for distances of 7 inches, sometimes less.

With the same size of print, individual differences in viewing distance can take care of differences in degree of visual impairment. For example, letters 1/2 inch in height can be read by:

20/20 eye at 30 feet

20/200 eye at 3 feet

4/200 eye at 7 inches

There are two special cases of young children who cannot accommodate for near without optical aids: (a) those with loss of accommodation from injury or other cause, which is rare; and (b) aphakia (lens removed because of congenital cataract and child left with impaired vision) which is found frequently.

The advantage of reading print of standard size increases in higher grades and especially in college or a job. The smaller the print the closer the required reading distance. Ability to sustain accommodation for close reading distance decreases gradually with age, although at any one age there are wide individual variations.

The purpose of an optical reading aid is to focus its user for whatever close distance is required to read the desired size of print. Four steps are involved in the selection of a suitable aid:

(a) Test reading ability with sentences of graded size composed of words at the 3rd grade reading level. The reading cards should be viewed from the standard distance of 16 inches (40 cm.). The smallest print on these cards, 1M, is about equal to ordinary books and newspapers. Higher M units are multiples of 1M, i.e., 10M print is ten times the size of 1M.

(b) Estimate in M units the smallest size of print the child is required to read or wishes to read. Specification in points is not a satisfactory measure of print size since point specification is a printer's measure of the size of a lead block and various prints of the same point rating may have lower case letters which differ in size.

(c) From (a) and (b) above, compute the required reading distance.

Example: Size of print read at 16 inches (40 cm.) is 10M. Required size 2.5M Required reading distance 4 inches, 10 cm.

$$\frac{10\text{M}}{2.5\text{M}} = \frac{16\text{ in.}}{4\text{ in.}} = \frac{40\text{ cm}}{10\text{ cm}}$$

Or, a second example: 10M/1M = 16 in./1.6 in. = 40 cm/4 cm.

The dioptric power required for any given distance is most easily computed if reading distance is specified in cm.

D = 100/reading distance in cm

10 cm reading distance, 10D; 4 cm, 25D

(d) Determine how much of the required dioptric power the child can contribute by accommodation, and how much must be supplied in the form of reading glasses or other optical aid.

If the reading aid is too strong the patient will hold the book closer than the distance indicated by steps (a) and (b). If the reading aid is too weak, the patient will not be able to read for long periods without symptoms of eye strain or blurred vision. In children it is sometimes necessary to have a home trial of two or more different lens powers. For this purpose it is possible to use inexpensive hook-on lenses.

Optical aids may be classified into three groups: (a) Headborne. This is the simplest type and most frequently preferred by children, a strong plus lens for near distance either in a permanent spectacle or as an attachment to the distance glass. (b) Stand magnifiers. When a very strong plus lens is required the headborne type is difficult to use because of critical focus. A focusable stand magnifier is usually preferred in powers of 18D and above. (c) Miscellaneous stand magnifiers of low power may be used instead of (a). They are especially helpful for trial use to determine whether the child needs an optical aid.

Analysis of the records of children shows that, whether they use large print, optical aids, or both, reevaluation is necessary at regular intervals in order to compensate for decrease in amplitude of accommodation, change in reading requirement, and possible change in degree of impairment.

Illustrative Case Histories

CASE 1

E.S. Diagnosis: R.L.F.
Attends regular school
Reads 2M print at 40 cm
Required reading distance for arithmetic is 12 cm

Age	Reading Add	Accommodation Required for 12 cm
8	3D	5D
9	4	4
10	6	2
12	8	0
15	8	0

Comments Case 1 Illustrates need for increasing dioptric power in reading aid because of decreasing power of accommodation with age. No change in required reading distance of 12 cm to see figures in arithmetic book (about 0.7M).

CASE 2

C.S. Diagnosis: R.L.F.
Attends "Sight Saving Class"
Reads 10M print at 40 cm

	Reading Requirement		Reading	Accommodation
Age	Size	Distance	Add	Required
8	1M	4cm	19D (a)	6D
11	1M	4cm	23D (a)	2
12	0.7M (dictionary)	2.7cm	37D (b)	0

a. Jeweller's Loupe
b. Focusable Stand Magnifier

Comments Case 2 Reading requirement changed from 1M to 0.7 (dictionary). Amplitude of sustained accommodation also decreased.

CASE 3

C.W. Diagnosis: optic atrophy secondary to trauma
Attends regular school

Age	Reading at 40 cm	Reading Size	Requirement Distance	Reading Add	Accommodation Required
8	14M	2M	5.7cm	11D (a)	6.50D
14	14M	1.5M	4.3cm	22D (a)	1.00
15	20M	1.25M	2.5cm	44D (b)	0.0

a. Spectacles
b. Focusable Stand Magnifier

Comments Case 3 Decrease in reading ability from 14M to 20M, decrease in accommodation and decrease in size of print. Doing well in regular school in spite of very low vision.

CASE 4

A.S. Age 15 Diagnosis: R.L.F. and high myopia (12D)
Attends Maryland School for the Blind

Reads at 40 cm	Reading Size	Requirement Distance	Reading Add	Accommodation
20M	2.5M	5cm	12D (a) 18D (b)	8D 2D

a. Obtained by removing distance glass
b. Focusable Stand Magnifier used with distance Rx

No more headaches after change from a to b.

Comments Case 4 Reading distance for large print (2.5M) books is 5 cm (2 in.) requiring 20D. Uncorrected myopia supplied 12D but had headaches when required to accommodate 8D. No headaches when given +18D stand magnifier.

CASE 5

L.R. Age 16   Diagnosis: R.L.F. and high myopia (10D)
Attends Maryland School for the Blind

Reads at 40 cm	Required	Reading Add	Accommodation
4M	2.5M (School)		4D
	1M (Home)	10D*	0

*Obtained by removing distance glasses

Comments Case 5 In school reads 2.5M print at 25 cm (10 in.) requiring 4 diopters of accommodation. At home takes off 10D myopic correction and reads 1M print at 10 cm (4 in.). Prefers the latter.

From these examples it is apparent that children, whether they use large print, optical aids or both, should be re-evaluated at regular intervals. This is necessary to compensate for amplitude of accommodation, change in reading requirements, and possible change in degree of impairment.

SPATIAL PERCEPTIONS IN LOW-VISIONED PEOPLE

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When I received the invitation to address this meeting, I was most impressed by the insight displayed by your suggestion that the discussion be centered around "spatial perception" of low-visioned people. This is obviously a topic chosen not out of an ivory-tower but instead from actual involvement with the real issues that are faced by our low-visioned people.

To a group so sophisticated, I am sure I am saying nothing new when I start by asking you to define with me, the word "vision" as a collective term applied to certain behaviors that we observe in our clients and students. Most of these behaviors can be classified as answering either the question "what is that?" or the question "where is that?" In the light of our chosen topic, we are going to turn our consideration primarily to the behaviors falling in the latter category. In what ways are low-vision people likely to manifest inadequate responses to this question? How may we help them move from inadequate to adequate behaviors in these "spatial perceptions" or "spatial discriminations".

Let us start by proposing that any questions which we may be tempted to ask as to anatomical, physiological and neurological mechanisms of the body involved in these discriminations are largely irrelevant to our interests. You and I have no ways of affecting these mechanisms other than indirectly as we are able to help our clients or students find more adequate solutions to their spatial challenges. Thus what follows focuses on the "how" aspects of our problem and leaves the "whys" to the physiologists, the neurologists and the psychologists.

Many years ago it was discovered "what is it" discriminations could, on occasion, be dramatically improved by putting certain lenses in front of the discriminators' eyes. Not infrequently this improved skill was and still is accompanied by a decrement in the "where is it" area. Some of you folks may recall having encountered sudden difficulties in knowing where the steps or the sidewalk or your feet were when you donned that new pair of bifocals. Two important points need to be made here with respect to our problem:

1. On occasion, lenses which are used to modify central vision (the "what is it" vision) have a deleterious effect upon peripheral vision (the "where is it" vision). While this is often true even with conventional, rather low-powered, lenses, it is practically always true, and to a much greater degree, with the lenses used as low vision aids. In fact, it is not hard to defend the statement that "low vision aids" can practically never be worn for other than sedentary use because of their distorting effects on the spatial discriminations of the user.

2. With the majority of low-visioned people, their decrement is primarily in central vision. Fortunately only a few suffer primarily from a decrement in peripheral vision. These latter people, however, are in much deeper trouble than the ones having central vision loss only. Peripheral vision loss often means loss of the person's mobility. For travel purposes, "where is it" is a much more vital question than "what is it"; also while remedial measures (lenses) are pretty readily available for central vision loss, we have much less experience with remedial measures for peripheral vision losses.

Let us look at both of these situations in more detail. The person who is working with low-visioned people should know as much as possible about these two aspects of spatial discrimination if he is to offer maximum help to his changes in their efforts to learn how to compete in what is, largely, a sighted world.

LOW VISION AIDS AND THEIR INFLUENCES UPON SPATIAL PERCEPTION

A few low-visioned people, particularly children, are supplied with aids for viewing distant objects. These are, in principle, miniature telescopes or, better, field glasses. The types used as spectacle aids magnify somewhere in the neighborhood of two times; that is, a person who has 20/200 visual acuity with ordinary glasses can be expected to be able to read letters of 20/100 size when viewing the latter at a 20 foot distance through his telescopic aid. It is not, however, this aspect that is relevant to our topic.

Rather we should realize two things. First, the size of the field of view through a telescopic aid is so limited that if the person wearing the aid were so restricted naturally in his peripheral vision, he would be declared legally blind on the basis of his constricted field of view. Spatial discriminations through telescopic aids are seriously affected. The usual field of view is 200°. Through a low-vision telescope, the viewer can see no more than 18°.

Second, not only is the lateral extent of field reduced to less than 1/10 of its original size, but the apparent distance and sometimes direction of objects seen through the telescope is grossly altered. This knowledge is, however, of little help to the person wearing a telescope who endeavors to move with respect to an object seen through the device. He is almost completely at a loss to know where it is. Extensive efforts to teach even children to cope with these alterations in perceived distances and directions have been virtually complete failures.

While only relatively few low-vision aids for distant viewing are prescribed by vision care specialists, quite a high percentage (at least 2/3rds) of low-vision people who are able at least to identify gross objects through conventional spectacles can be made capable of visual reading of ordinary magazine and book type through the use of near-point low vision aids. Therefore, these are often prescribed.

From the point of view that is our particular concern, the significant thing about these near-point low vision aids is that they all greatly reduce the available field of view as they require that the user move much closer to the material being read than he would do when using conventional spectacles. For legally-blind persons, reading distances through their near-point aids of 4 inches or less are routine. This reduced distance and its concomitant reduction in the field of view has two important influences upon spatial perceptions of the user.

First, the near-point aid (like the telescope discussed previously) greatly reduces the lateral extent of the field of view. In many instances, the user of the aid is unable to see at one time all of the letters of the word he is trying to decipher. Short words are not too bad, but if the author suffers from that dread disease called "polysyllabitis", the low-visioned person may not have enough peripheral visual field left to cope with the terminology.

Second, the loss of field of view has a marked effect upon the ability of the user to keep his place while reading. Traveling from the end of one line to the beginning of the next is no small task when neither the starting point, nor the goal can be seen during most of the journey. The problem is vastly complicated when illustrations, tables, graphs and captions are involved. The very devices which offer a solution to the "what is it" question, pose new and difficult complications in the "where is it" department.

PERIPHERAL VISION LOSSES WITHOUT OPTICAL AIDS

Much more fascinating to me, and much less well known and worked upon, are problems in spatial perception arising "naturally". By that we mean those distortions and limitations that we find in low-visioned people when they are working without the benefit of optical aids or are using only conventional spectacles. Let me cite a specific instance that raises several significant issues.

Not long ago, at the outpatient clinic of the College of Optometry of Pacific University, we had the opportunity of testing, almost simultaneously, two high school juniors, boys. Both Rich and Wilbur showed identical responses to our standard test for acuteness of distance vision. Both scored 20/300 on the famous Snellen scale. This meant that both boys were legally blind--in fact they had come to us through the offices of the Oregon State Commission for the Blind with whom we work rather closely. Here, however, the similarities ended.

Wilbur had come into our clinic's reception area, and had been taken through the rather complex series of turns and doors between that area and our low-vision laboratory, on the arm of his father. He did not travel alone when assistance could be solicited. On those few occasions when he could be persuaded to take off on his own, his path was a cautious, exploratory one marked with shuffling, hesitant gait. Rich, on the other hand, when questioned as to his favorite recreation, answered immediately and eagerly "skiing"!

Two more differently oriented persons with respect to spatial discrimination could hardly be imagined, yet they both showed the same central 20/300 vision. Also, when tested later for extent of peripheral fields of vision, Wilbur showed just as large a field as Rich, although his speed of response to peripherally located objects was far slower than those of his skiing contemporary.

What does this tell us with respect to spatial perception in the low-visioned person? My proposal is that this is a great unexplored area in low vision. In the absence of "instant" remedial measures such as we have for central vision, we have avoided the issue of systematic development of spatial discrimination in the low-visioned. I recall discussing Wilbur's situation with one of the consultants to the Oregon State Commission for the Blind. His prompt analysis was that Wilbur was "neurologically impaired" and that, therefore, "nothing could be done" for the boy.

Fortunately, we did not adopt this "do nothing" point of view. Instead we devised a program of home-supervised activities (Wilbur lives approximately 100 miles round-trip from our clinic) designed to increase his interactions with peripheral events (Wilbur didn't hear peripheral events either, although there was no evidence of audiometric loss).

We encountered some difficulties in what we suspected was some parental preference for the dependency status; also some well-meaning peripatologist at the Oregon State School for the Blind persuaded Wilbur to enroll in a six-week summer course in long-cane technique, "since he was going to be going to college". However, with the cooperation of the physical education people at Wilbur's state college, and his apparent decision to stand on his own feet, he stopped using the cane, and traveled about campus "on his own". Our clinic will see Wilbur again the middle of next month, and I anticipate that his spatial perception skills in terms of awareness of, speed of response to, and accuracy of location of objects, as well as discriminations of spatial relationships between them, will show an identifiable increment.

Spatial perception skills can be evaluated, and systematically enhanced, not only in low vision people, but in all people. We are approaching the time when we shall be able to identify and assist the motor vehicle operator who suffers significant decrements in peripheral awareness as central vision demands go up. The work of Dr. Barraga is setting new horizons in this area. Her very significant successes prompt me to close with one of my favorite theses: "Low vision children are often taught to be blind."

In a world of kaleidoscopic visual events, many of which are perceived only dimly, there is offered to the child the basic choice between utilization and ablation of these stimuli. There is no mid-ground. The visual stimulus, if not utilized adequately, will, unless ignored, constitute at least a distraction, if not an active threat. I know well a Portland, Oregon couple in which the woman with two artificial eyes guides the man who has 20/200 Snellen vision. "All I get out of what I see is confusion!", he says.

How many of our children, dubiously identified as "blind", are systematically discouraged from learning to utilize visual cues from their environments? We blindfold older ones so that they'll learn to read Braille tactually rather than visually; are we at least as tyrannical to our low-visioned pre-schoolers? Do we make any efforts to provide play activities in which the child is systematically aided in developing his ability to utilize peripheral vision for guidance and steering purposes?

Spatial perception is not automatic. It is a learnable visual skill which can be systematically guided and developed with modern methods of therapy. Spatial perception is of momentous importance, socially and economically. It makes the difference between a physically independent individual who moves competently without special assistance through our sighted world, and a physically (and usually economically) dependent person whose demands upon society typically exceed his contributions to it.

If we, instructors of the blind, are to exercise maximum influence towards helping carve niches in a sighted world for our partially-sighted charges, there can be no more important place in which to begin to work than in the early development of adequate spatial perception skills--work which must begin before the forces encouraging ablation of peripheral awareness and reaction have taken their deadly toll.

It is my sober suggestion that the place and time to begin is long before most of us now see the partially-sighted child. Kindergarten is far too late. We must begin at nursery and pre-nursery levels, and we must do it in a framework that rejects, apriori, any notion of structural inadequacy. We, optometrists and ophthalmologists, have no certain way of knowing that any child lacks light perception. If a child even might have light perception we ought to make every effort to help him to learn to use this skill in building his spatial discriminations.

PROGRAMS IN DAILY LIVING SKILLS FOR THE ADOLESCENT

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Charles Dickens, in *A Tale of Two Cities,* said of adolescence, "It is the best of times. It is the worst of times. It is the age of foolishness and it is the epoch of belief." Adolescence has been described as having many ups and downs, growing from wanting protection, security and direction of parents and teachers one hour, and wanting to be independent the next. The teen age requires many adjustments, and we teachers and parents don't make it too easy. We confuse. We say we want teens to have a good time, but times have changed and their idea of a good time is different from ours, and we don't approve of their good times. Supervise youth, believe in them! But don't put them in a small cage where you can watch them all the time. Prepare them, then don't watch them.

Our living skills programs seem to put most stress at the Junior Hi level when the major effort should be in the pre-school years. Administrators, teachers, houseparents and parents have indicated a need for materials, devices and information for teaching techniques of living. Many programs have sprung up. Residential schools, public schools, camps, summer school programs, and individual teachers are all devising programs. Blind adults have told us previous programs have not given enough opportunity to develop the blind normally. We find blind teens who are inadequate in performing simple tasks, who have never cut meat, poured liquids, cut with scissors, struck a match, tied shoe strings. The pre-school age is when sighted children learn these tasks by imitation.

Some of the types of programs on the increase are:

1. Regular school classes, public and residential, which include in the curriculum a course on specific living skills

2. The homemaking program, reaching primarily girls

3. Residential school houseparents who devise programs

4. Summer programs---residential school, public school, and camps

These are all good, but are not enough. Ideally, living skills techniques should be an integrated part of the school program beginning when a child enters school, and continuing at every level. Activities should be planned to develop the blind child as normally as the sighted. We should use all the child development information we have available and teach the blind child to perform each task at the normal age, as nearly as we can.

I receive many questions concerning: What can I teach? Do you have an outline? What do you teach? Where do I get a teaching curriculum? What methods, textbooks, materials do you use? No list can cover the area adequately. It is hard to develop a curriculum to work in every situation. We must take each child at his state of development and teach the individual his needs and likes.

Blind youth need to be taught to be style conscious. They want hair styles, cosmetics, and manner of dress like their peers. Some 14, 15, and 16 year olds don't know how to take a bath. They must be instructed to take a washcloth, soap, and wash the entire body. Each teenager must select and buy some of his own clothing. An interested charm teacher devised a plan to help teenagers know about themselves and identify with a "type". Lists of questions were asked concerning likes and dislikes, favorite colors, kind of car they would like, kind of home, type of man they'd like to marry. Each girl was taught clothing, cosmetics, and hair style to fit her type.

Posture needs to be stressed - holding head up, and looking toward the person speaking or spoken to. They need to learn facial expressions to show various emotions. Graceful sitting, walking, and freedom from unpleasant mannerisms are important.

Developing acceptable eating habits is difficult. Keep working on them. Try harder. Teaching to prepare and serve simple foods aids in handling foods better at the table.

In setting up a program, keep it an experience program. Don't just talk about it, do it. Use a homelike setting if possible, but teaching can be done in a classroom, kitchen, dormitory etc. Equipment is not hard to provide--it is readily available. Use everyday things found in everyday places. Teacher preparation is not difficult. Anyone who lives daily can teach something in daily living skills.

The outcome we expect is to help young blind children go from dependence to independence. Give them confidence in their ability to meet daily needs. Let them become a part of the teen-age world and identify with other teen-agers. Each one must find out who he is and where he is going, and hope he will find "more of the best of times, less of the worst of times, more ups than downs, lots of foolishness and some time to search for beliefs."

Everyone of us is involved in teaching daily living skills, either formally or informally. There is no one right way, there are many ways for a blind person to attain skill. The programs must be made to fit the individual. Houseparents as well as parents are involved in teaching daily living skills all the while they are with the child.

Blind children grouped together for living skills instruction learn from each other. Programs are financed by grants, rehabilitation, schools, clubs and camps. Many resource persons are available to help, such as Red Cross, Gas and Electric companies, Charm schools, etc. These need orientation and guidence in teaching the blind, but can add immeasurably to programs.

We must become experts at defining and describing in words. To teach a simple skill, we must analyze exactly what we do to accomplish the task step by step, then interpret this to our student. When broken down to its simplest steps and taught progressively, most skills become teachable.

Our multiply-handicapped may need early workshop training with half day school to develop skills needed for employability. Workshops for the retarded in the community may be ideal for giving some of these children first pre-vocational training.

Other living skills not mentioned should be included, such as use of simple tools, "manner" skills, and handwriting.

THE NEED FOR SEX EDUCATION

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INTRODUCTION

Sex education in the broadest term denotes an effort to understand human sexuality which means an understanding of human growth, human development and human interaction. This concept emphasizes that sex education is a means rather than an end. Emphasis in sex education is therefore placed on the recognition that human behavior, human interaction and human endeavor are all based on the individual's understanding himself as a member of groups and as a sexual being.

This broad interpretation of sex education is growing and there is developing an understanding for the need of sex education in schools in the United States in spite of a conservative, right wing group who are making every effort to interpret sex education in very narrow confines. This paper will address itself in brief discussions to the following: (1) Why the need for sex education; (2) Terminology, and understanding of one's self; (3) Ourselves as sexual beings; (4) Concepts held about sex and sex education; (5) Knowledge and preparation of parents for carrying out sex education; (6) Preparation of health personnel for carrying out sex education and; (7) Some special implications of sex education.

Wny the need for sex education?

Sex education must be considered a part of general education. We can no longer foster the idea that sex education is a function of the church and family alone. When we base this most important aspect of interpersonal relations and real education on spiritual and religious concepts only, we must recognize that it will not only be taught in a superficial way, and information presented will not bring in total community ideas but instead, biased points of view. In its proper function the school's role is the development of the total individual and a healthy sexuality is one aspect of this total development. The school can reinforce the parent and the church, but neither parent nor church can do this alone. Studies have shown that there is a lack of communication between parents and children with regard to sex. Kirkendall pointed this out in one of his early studies in which most of the persons indicated that their sexual conduct was never discussed with an adult. Most of them indicated that the majority of the adults, particularly their parents, did not give them the information and that 90% received information from peer groups (1). In a general aspect Kirkendall and Calderwood indicate that (a) adolescents get most insight about sex from friends; (b) sex information obtained from "appropriate sources" is limited and meager in scope; (c) that received from "appropriate sources" is more aptly labeled "reproduction education;" (d) what occurs between parent and/or teacher and youth is often something being told and; (e) parents and teachers often lack a clear concept of the outcome they would like to achieve through sex education, other than "keeping out of trouble" (2). In a study among middle class university females, Darity observed that only 19% of the girls he studied accredited parents with the major source of sex education. The major sources were friends or peer groups, 44%, and books, 24%. The remaining 13% gave teachers, counselors or a combination.

These examples, and many more, indicate that the school not only needs to be a major institution of sex education, but it must be a major source for sex education. Unfortunately, this is not being easily achieved. The fact that parents and educators hide the fact that sex can be intense pleasure creates a problem (4). Also, because parents and teachers are not willing to accept the normal sexuality of adolescents by ignoring it, they refuse their responsibility of dealing with it and molding it (5). This alone justifies the need for sex education. It should be pointed out that as the need for teachers to be prepared to instruct in "the new math" became a necessity, school administrators demanded facilities for such preparation and teachers were prepared. Why not the same for sex education? We need institutes, workshops, short courses and the like for teachers' preparation in sex education. The fact that sex itself is often placed in a realm external to the individual exclusive of the school argues positively for sex education in schools.

Terminology and understanding of one's self

The term sex education is quite often misunderstood. To many persons it denotes education with regard to sexual intercourse. In actuality, as earlier stated, sex education is concerned with people as sexual beings, and the interpersonal relationships between individuals of different sexes and of the same sexes. The concern of sex education is the development of a "healthy sexuality", and for this it is necessary first to work toward helping the individual understand himself. Understanding one's self means to understand the physiological and psychological processes of becoming a sexual being. This understanding cannot be divorced or separated from the general educational process. However, the uniqueness of individual differences and needs must be kept in mind. These differences are associated with differences in understanding, differences in types of social interaction, and differences in comprehension and in emotional and social needs. Sex education is therefore concerned with self-analysis, self-examination, the establishment of goals, and the acceptance of values and making choices as related to the values one has established for himself. These values will be based on community social values, peer group social values and those social values transmitted or interpreted through the family. Sex education in the school should try to integrate these values and concepts so that they will serve as guidelines for students. With an understanding of sex education in these terms it would seem that the role of the school in sex education is more clearly defined. The school serves as the integrating force and therefore must assume its responsibility for sex education.

Ourselves as sexual beings

Our sex as male or female is an ascribed condition and thus cannot be changed. Therefore, we must learn to understand ourselves as sexual beings, and this means to understand ourselves as human beings. One major aspect of this understanding is the development of gender identity and gender role.

Gender identity is one of the earliest processes involved in understanding ourselves as sexual beings. This is done through emulation of the parents. The boy identifies with the father and the girl with the mother. Gender identity is a learned process, and it is presumed to come about before real sex anatomical identity is discovered. This is a socialization process which is, in all probability, the easiest aspect of sex education for the parents. For the sighted child, role function and gender identity can become synonomous. For the unsighted child a special effort may be necessary through "talking out" role function, and specifically placing the child in a model setting, where the male role and female role with regard to responsibilities in the home may be acted out. Schools have a responsibility for strengthening both gender identity and gender role. Teachers need preparation to work with young children in this respect.

Concepts held about sex and sex education

There are varying concepts held about sex. Harris, Lennon, and Beck did a study of 404 Oregon families in 1945 in two school communities. They observed that one fifth of the parents were in favor of keeping sex knowledge from the child as long as possible; one-half felt nothing should be said until the child raised the question; one-fifth were opposed to children helping to prepare for a new baby; two-fifths felt that it was improper for parents to undress in front of children and one-half felt teachers should avoid the topic of sex (6). We should make more careful study of these ideas today to ascertain whether or not there have been major changes in over 20 years in most American communities since the aforementioned study was conducted.

Kilander did a survey of public knowledge on certain aspects of human reproduction in 1959. His study showed that people are still misinformed and superstitious about heredity. This study also showed that 52% of high school students know the purpose of blood tests; 78% of college students, 85% of adults, and 61% of high school students felt that the danger of venereal disease should be explained during adolescence as a part of sex instruction. This latter finding was compared with a 1936 study, in which 62% of those studied felt that such teaching should take place during adolescence. Kilander concluded that no group is adequately informed. However, he indicated that male students are more informed about the opposite sex than females; and young parents were better informed at that time than young parents were a generation earlier (7).

Maw (8) indicated that ideas on approaches to sex education fall into seven categories which are: (a) those ideas which were more prevalent before World War I; (b) moral persuasion, which correlated sex with sin and could not be changed after marriage; (c) fear, of dangers in present life, venereal disease and the like, which after 1910 was substituted for the fear of after life; (d) factual information, which could be devastating since some material was almost pornographic; (e) ethical understanding, which stresses the development of attitudes; (f) personal development, which the guidance program emphasizes; and (g) human relations, which is a combination of personal development and socialization.

These examples of studies point out some conceptions of sex and sex education. They do leave unanswered such questions as: What is the relationship of these concepts to miseducation? Also, what has been the effect of previous experience with sex education on the various concepts held? Also, what is the relationship of these concepts on the degree of knowledge and the preparation of the population, particularly parents, to carry out sex education?

Knowledge and preparation of parents for carrying out sex education

It has been observed that many people feel that the responsibility for sex education is that of the parents alone. Albeit a most desirable goal, an understanding of the degree of knowledge and the preparation parents have for carrying out this function is important.

Weatherill points out that it is generally agreed parents are responsible for sex education. He says, however, it is desirable that the school should help the parents (9). As pointed out earlier, Harris *et al* (10) indicated in their study that some parents felt that information should be kept from children, while some parents felt that sex education should be discussion between parent and child. These two points of view will have to be reconciled in the particular community where studies are being carried out in preparation for sex education. Under the same premises, the Board of Education and other community groups must work together to understand what phenomena may be operating since the underlying problems may be an extension of a general cultural and social pattern. This may be illustrated by the study carried out in a southern city among 213 mothers from low-income families. These women have an average of four children. Their mean age was 29.50 years. The study indicated that a high percentage were not adequately prepared to carry out sex education (11). This is summarized as follows:

> A retrospective observation of the kind of education that the subjects received in their families showed that in over 68% of the cases mothers or guardians did not discuss marriage or sex with them when they were growing up, and over 65% said they did not ask questions about sex and marriage. Of the total 213 subjects, 71 (33%) said they did ask questions but only 16% indicated receiving answers which could be considered satisfactory. It was further observed that over 50% of the subjects were ill-prepared to answer the simplest questions about sex if posed to them by their children (12).

The ability of middle-income families to carry out sex education may be reflected by college students through their indications of sources of information. In her study of 50 college freshman females, Angrist (13) observed that it was primarily close friends or roommates in which discussion on birth control took place in both high school and college. However, college discussion centered more in peer groups with increased communication between boys and girls. She also observed that discussion with mothers and teachers occurred frequently.

It also appears that uninformed adolescents may turn to peer groups for information on sex rather than parents. This may imply an inability of parents to relate to children well enough to create an atmosphere of inquisitiveness. In the 1964 School Health Study, (14) it was observed that among ninth grade students, three-fourths of the boys and one-half of the girls implied they would never, or at least only sometimes, turn to parents or school counselors for information when bothered with questions about sex.

The need to better understand the degree of knowledge and preparation of parents for carrying out sex education is essential if programs are to meet community understanding and needs.

Preparation of health personnel for carrying out sex education

When one speaks of sex education in a community, quite often the procedure is a recommendation for a lecture by a physician. Usually where this lecture is carried out, it consists of a detailed explanation of human reproduction. To the degree that human reproduction relates to human sexuality, this segment may be adequate. However, this approach is very limited. A broader aspect with emphasis on the development of understanding of the emotional growth of individuals, sexual interaction and interpersonal relations, all of which are most important, are usually omitted by physicians because of lack of preparation. This is natural since medical schools do not prepare students for sex education. Sheppe et al (15) points out that up until the Masters and Johnson report (16) there had been nothing done on the physiology of sex. Medical students were ignorant of the physiology of coitus. They also found that the graduates of medical schools, who are considered experts, may find themselves knowing less than their patients. They reported that freshman medical students, usually college graduates, did not know any more than their co-equals, freshman law students. However, at the end of four years the medical students did know a little more. Hugh (17) summarizes the findings of both Shappe and Harris and Lief in which the general impressions given by Sheppe and Harris coincide with Lief's findings.

Brim points out that in the United States the eight important groups working in parent education, namely; family life, educators, medical personnel, nurses, clinical personnel, home economists, clergymen and religious educators, teachers and parents, all of whom have received special training, have not shown conclusively that they have changed parents or children by any of the usual educational methods (18). Is this an indictment of educational approach or educational method or of both?

Schemia (19) indicated in 1960 in the Journal of Nursing that sex education in the elementary schools where she was working, was carried out one afternoon a year with a movie and answering questions of mothers and daughters. Also being available to answer questions later on was a part of this program. She was attempting at the time to arrange the same with boys, to bring them in closer contact with their fathers. She did not indicate that this was satisfactory, but did state that this was a regular feature of the school system. However, questions can be raised with regard to methodology, particularly, the separation of the sexes. Also questions may be raised concerning the approach through one lecture annually since sex is with us at all times. Steinhauf (20) says (a) sex education should be a systematic introduction as a part of a larger course, (b) all persons who participated must be responsible for the development of appropriate attitudes, (c) every question must be answered honestly, and (d) boys and girls should be taught together. He also points out that a good adjustment of the teacher is necessary.

Determining which professionals in the medical and health field are capable and suitable in sex education is a responsibility of a health department and a part of epidemiological study. There is no doubt that many lay persons, parents and professional persons must form the team for good sex education.

Some special implications of sex education

Education in human sexuality for the child also comes through the discovery of an anatomical difference between boys and girls and raising the simple questions such as, "Where do babies come from?" These simple questions should be answered honestly and frankly. However, the majority of parents are not prepared for their questions nor for the necessary answers. For the parents with the visually handicapped child this becomes quite often more difficult since there usually is no anatomical form to which the parent can help the child relate. Therefore, the school becomes a very crucial element in sex education.

The blind individual, as we know, has the same sex needs, sex drive, sex desires, sexual interaction as the sighted individual, and the development of a healthy sexuality of the blind through sex education in the school is just as important and must receive the same emphasis as literature, art, and the like. Anatomical structures with life-like human qualities for touch must become more prevalent and used in schools of the blind. Teachers of the blind as well as the sighted must attend special institutes on sex education. Parents of the blind need special institutes on how to educate the blind in this area. Just as the curricula have been adjusted to meet the "Age of Sputnik" -- we must now look at the curricula in schools to meet the demand for developing more and better human understanding, developing emotional stability and developing a "healthy sexuality".

Summary

There are social roles which compete with the physiological and psychological development of the individual. Good community education takes these factors into consideration when analyzing the school role. Today it is properly considered by expert educators and by many communities that sex education is a proper function of the schools. This function and role of the school is considered as a necessary complement and supplement of the sex education of parents. The school serves as an integrating force for sex education.

However, before proper sex education can be carried out, teachers must be prepared, parents prepared, and the community prepared. This can be done through workshops, study groups, and any educational effort which has wide community support. Just as the schools have assumed responsibility over the years for education in the varying manifestations of human and community needs, they must assume responsibility in sex education.

This assumption of responsibility is as vital for the visually handicapped as for the sighted because the sexual needs, desires and understanding are no less for either.

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ENHANCEMENT OF FUNCTIONING OF THE VISUALLY HANDICAPPED THROUGH PHYSICAL EDUCATION AND PHYSICAL DEVELOPMENT

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The purpose of my presentation will be to urge all of us to examine the need for stimulating learning through physical activity. I would like to encourage constructive thinking and to help us question our tenacious adherence to traditional practices. First reaction may possibly be that of unconcern or doubting rejection. Certainly there are weaknesses in instrumentation and methodology, and we may argue that we are already doing a far better job than that which is being advocated here. Maybe this is true. There can be little doubt though that improvements are possible and needed in working with visually handicapped students.

A review of the literature reveals that everyone acknowledges the indispensable importance of a strong physical education program for visually handicapped children. Buell (1966) stressed that "physical education is even more important for blind individuals than it is for others because greater physical demands are made on them throughout the day." Superior stamina is required by a blind person as he "must expend much more energy to reach the same rung of success as an individual who has normal vision." Our concern should not only be with the amount of energy expended but when and how the energy is used.

Children with visual impairments tend to be deficient in physical skills and general coordination. The child who is blind often lacks the stimulation to perform many physical activities. Such inactivity often creates serious postural and orientation and mobility problems which can modify body use, intellectual growth, and social and psychological development. We do not know the extent to which this modification or deficiency might, and often does, ultimately rob individuals of optimum growth. Effective training to prevent or lessen these unfavorable outgrowths is especially necessary for the blind child with additional handicaps, particularly the child who is also mentally retarded.

It is chiefly to the primary and lower elementary-aged children and those blind children who are also mentally retarded that I would like to direct our attention this morning. By no means should our investigation of this approach be limited solely to these groups however, as there is no one method of teaching which is ideal for all children. Like everyone here, these students differ in background, in needs, in temperament and in readiness for any given experience. As children vary, so must educational approaches. Limitations in experiences, exploration and participation in various activities can restrict the blind child in the development of physical skills using both his large muscles and/or his small muscles. Restricted mobility deprives the child of proper physical development and experiences, thus creating a vicious circle. These deficits are generally nourished by accompanying social, psychological and educational complications.

There have been no known attempts to implement programs designed specifically for alleviating or decreasing these problems solely by means of physical activities and physical education. This is true even though emphasis is continually being given verbally and in writing to the fact that children who are visually handicapped and mentally retarded suffer major restrictions in their acquistion of knowledge where deficits exist in mobility, physical activity, new experiences and interaction with one's environment. Lowenfeld (1948) has emphasized that blindness imposes three basic limitations on an individual: (a) in the range and variety of experience, (b) in the ability to get about, and (c) in the control of the environment and the self in relation to it. Special provisions for meeting these restrictions go far beyond the adaptation of tool subjects. A physical activities approach could be the answer for some children. The traditional, academically-oriented curriculum may be a major handicap for many of these children as it often fosters boredom, apathy and less than the optimum attainment of intellectual ability.

When the blind child is educated academically during the formative years of his life but is still dependent upon others for moving about, he is thus restricted in motivation and in extending and using the education he has attained. Personal experience and free movement developed especially in physical education programs (Scholl, 1967) will help provide these children with a command of their own environment.

In 1967, the American Foundation for the Blind published as part of its Research Series, *The Blind Child with Concomitant Disabilities* by James Wolf. Wolf's survey of 48 residential schools revealed an absence of any specific theoretically conceptualized model from which the best suited educational diagnostic and instructional processes could be developed for blind children with additional disabilities. It was also found that despite the poor achievement record in Braille reading by retarded blind children and the fact that one-fourth of the children were non-readers, the majority (73 percent) of the teachers believed that their retarded blind children should be taught braille and use this as their primary medium for learning.

The Wolf study makes it very clear that whereas educational objectives have been defined, for the multiply handicapped blind child the learning activities have not been selected that will best aid the attainment of these objectives.

Wanting to at least provoke some questions in your own mind I would like to suggest that a very intensive physical activity approach be considered for these children. We would also agree to the need for more and extensive experiential physical activity. But how many of you would agree to a curriculum with such a program as its hub? I believe that such an approach can effectively be utilized for meeting the needs of many of our students.

In the area of mental retardation separate studies by Oliver and by Corder showed evidence that not only do physical fitness and motor ability of the mentally retarded improve from the effects of a structured physical education program, but that these changes may be accompanied by an increase in I.Q., social maturity, learning ability, and low-skilled work capacity.

James N. Oliver (1958) used an experimental and control group of educable subnormal boys (IQ of 54 to 86) in his study. The boys were matched as nearly as possible for age, intelligence, size and physical condition. The experimental group was given a ten-week course of systematic and progressive physical conditioning and recreational activities of two hours and forty minutes duration each day. Statistically significant improvement in the mental tests as well as with physical qualities and abilities was found through the use of analysis of variance on gain scores. Oliver considered the factor responsible for the mental improvement to be largely emotional, a combination of (a) the effect of achievement and success, (b) improved adjustment, (c) improved physical condition, and (d) the effect of feeling important.

W.O. Corder (1966) investigated the effects of a planned program of physical education on the intellectual, physical and social development of educable mentally retarded boys. An experimental group of eight boys was given an intensive 20-day program of physical education. Eight retarded boys designed as "officials" met each day with the training group while eight others served as the control group. It was found that the experimental group made significant IQ gain scores over the control group on the Full Scale and Verbal Scale of the WISC.

Such research, though confined to small subject populations, mentally retarded boys and other limiting factors, should encourage us to explore extensively the feasibility of utilizing a physical activity, physical education approach for increasing the cognitive development of the young blind child and the educable mentally retarded blind child. An excellent article by Phil Hatlen in the *International Journal for the Education of the Blind* in October 1967 advocated a curriculum for severely multi-handicapped children with much physical activity and a great deal of purposeful movement as its core. A program such as this could be extremely beneficial to the educable mentally retarded and our students in regular classrooms also. Let me acknowledge here, too, that I am not a physical education instructor nor am I lobbying for them. In fact, physical activity as I envision it would be only partially the responsibility of the physical educator as it is now. Classroom teachers who do not tie themselves and the students down to working only in the classroom need to carry the main responsibility. This "out-of-the classroom" teacher would be responsible for cognitive growth through concept developmental experiential lesson plans and considerable interaction with the environment. Physical educators can be responsible for the musculatory and postural development. Orientation and mobility needs to be a joint effort. Of course parents, the family, house parents and peer group companions should be very much involved also.

Far too few of our students are really getting the kind of physical activity program they need and deserve. We can be quick to give lip service to the quality of our present programs but the end results all too often should cause us to question the validity of making positive statements.

Thinking back to some of the students I have worked with in the past, I very strongly wish now that I had gone much more extensively into such an approach. The title of this conference is Beyond the 3 R's. Great! Beyond (a) restlessness, (b) reversion and regression, and (c) rudimentary routine. And this pertains to youngsters in the regular classroom. A well constructed and instituted curriculum outside the classroom could occasionally have been considerably more valuable and worthwhile if only for a few hours or for a period of several days.

We are all aware of the blind child's need to understand various basic concepts of distance, size, texture, and relationships. The mobility instructor for example is readily aware when such knowledge is lacking, making it necessary for him to devote valuable time to teaching these concepts before he proceeds. If, however, the children had received an adequate background of enriching experiences earlier, then the limited time of the mobility instructor could be more economically used for his teaching specific mobility skills.

In the last few years it has become increasingly apparent that formal orientation and mobility education has had an undeniably important impact upon learning. Physical activity as described here should be viewed as the broadest interpretation possible for orientation and mobility with all teachers, house parents, friends and members of the family needing an understanding of the development of these skills. "This awakening on the part of educators may be the most significant development of this decade, in terms of the lifetime needs of visually impaired children and youth" (Alonso, 1965). If such activity is this important for blind children in general, is not an even more intensive approach more meaningful for those children who are not presently reaching their highest level of attainment?

The blind child cannot completely learn about his environment or himself solely through the use of words. Still, the farther a child proceeds in school, the more we expect and even demand that he acquire information, concepts, ideas and understanding through the use of words alone. Since so much communication for the visually handicapped is entirely by verbal description, the blind child, when needing to function kinesthetically or tactually, may make inaccurate movements or related a nonacceptable meaning of a previously verbalized concept.

An enriched physical activity program should provide these children with more than the common, everyday experiences necessary for ordinary physical growth and for their emotional, social and intellectual development. It is through such an intensified program that the kind of foundation can be built which will provide the basis for greater and more meaningful progress in later learning.

We need to remember the experience and mental growth go hand in hand; that the blind child's imagination and reasoning power can be developed through the use of physical activity; that new experiences can be acquired through the process of association, and memory made sharper through interest and practical use.

Many teachers forget to really teach, and in place of teaching try to pour a mass of unrelated facts into the blind student's head and are satisfied to have the child give back these facts in parrot-like fashion. Surely they must know that this automatic performance has little or no lasting value to the student who has had limited experience or a weak foundation from which to build. Robot retrieval does not allow the child to develop his intellectual potential to its highest peak but may make academic subjects dull, meaningless, useless and without pleasure to him.

Before presenting any curriculum, whether physical activity oriented or not, the teacher should find affirmative answers to these questions: Will this type of experience develop the child's mind, make him think for himself, reason things out, help him to associate this new information with what he already knows? Will it be beneficial to him over and beyond this lesson? Does it meet his needs for self growth?

The goals through physical activity should vary in the degree of effort and skill necessary to reach the children. Some goals may be accomplished through participation in simplified activities in a brief period of time. Other goals may require more skill, varied efforts, and a longer period of time. It is agreed that blind children "will need special individualized instruction to develop the necessary physical skills and competencies" (Clapp, 1965). Adequately determined objectives include those which can be reached through the individual's own interest and efforts and those which are termed "teacher objectives." The teacher's objectives need not always be known by the children, but the pupil's objectives should be the child's and should be discussed with the child. It is best that the pupils have a clear conception of what they are attempting to accomplish, and that they are aware of the benefits derived when the objectives have been reached.

The success of such a program as I have advocated could be partially measured and evaluated through creativity and modification of the Orientation and Mobility and Physical Education sections of the *Self Study and Evaluation Guide for Residential Schools* published by the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped. Whereas a residential school might more easily be able to adopt such a physical activity program for some of its students, the program could also be adapted to the needs of a child in a resource room. The resource or itinerant teacher might have reason to be even more concerned about such an approach as the public school teachers would not ordinarily be working on the additional concepts and experiences necessary for a blind child.

Controlled experimental studies of diversified and extensive physical activity programs should be fully explored for blind children in the primary and elementary grades and for those blind students who are also mentally retarded. Oliver and Corder have shown that increased intelligence quotients and other positive effects have been gained through a special physical education program for mentally retarded children. Their results, though not directly applicable to the area of education for those who are visually impaired, should encourage us to explore this concept for best working with our students. Such a program may serve as the core of a curriculum with the traditional academic courses to follow. The physical activity core may be supplemented by reading and arithmetic or any other subject as long as that subject does not become all important. The selected activities and experiences, methods and procedures utilized would have as their ultimate goal the furthering of the following aspects of development in blind children:

1. Improved posture, coordination and physical fitness

2. Greater awareness of the functions of one's own body and how movement can be controlled

3. Increased curiosity in one's environment and increased motivation in exploration

4. Increased perceptive exploration in the study and recognition of tactile forms and objects

5. Increased social interaction and growth

6. Improved ability to conceptualize an organic whole from its parts

7. Improved self-concept as a result of the ability to make first-hand judgments instead of having to accept the verbal explanations of others

8. Improvement in orientation and mobility

9. An increase in intelligence quotient

And now before Mr. Brothers outlines some suggestions for you as to what some of these physical activities might be, I would like to read to you a very favorite quotation of mine as given by a patriarch in the field of education for the visually handicapped, Dr. Samuel Gridley Howe.

> Never check the action of the blind child; follow him, and watch him to prevent any serious accidents, but do not interfere unnecessarily; do not even remove obstacles which he would learn to avoid by tumbling over them a few times. Teach him to jump rope, to swing weights, to raise his body by his arms and to mingle, as far as possible, in rough sports of the older boys, and do not be apprehensive of his safety, and if you should see him clambering in the branches of a tree, be sure he is less likely to fall than if he had eyes. Do not too much regard bumps upon the forehead, rough scratches or bloody noses, even these may have their good influences. At the worst they effect only the bark, and do not infuse the system like the rust of inactivity.

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8

STIMULATING LEARNING THROUGH PHYSICAL ACTIVITY

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When presented with a topic such as "Stimulating learning through physical activity", I felt it was most natural for me to turn toward the field of physical education for some of the answers. I should have realized that the answers are not always where you expect to find them. When I began my work with young blind children out in Oregon I soon realized that the objectives of physical education were attainable only after the achievement of effective orientation skills. Orientation skills in this context refers to the basic techniques as described by Blaha (1967). This conclusion had far-reaching effects for me, for I began to look at all program objectives with a much broader perspective. The fields of mental retardation, learning disabilities, and physical education can make contributions in the area of motor learning.

Each of us has a framework within which we have structured our educational goals. Fairly early in my experience I was impressed with providing an environment where we could achieve active student participation. From my experience with young visually handicapped children I have felt the curriculum should be experientially oriented. I have provided this brief personal background hoping you will better understand my point of view as we discuss the research from physical education, and the movement theory programs of Kephart, (1966), and Barsch (1967).

Physical Education Research

With the present topic I naturally turned to the available studies in physical education, but unfortunately I can report very little.

Many of the early studies were correlational in nature and dealt with college and adult populations. The relationships of academic achievement to physical fitness were quite low. (Johnson, 1942; Giauque, 1935; Hinrichs, 1941). On the other hand Kulsinski (1945) found high positive relationships between IQ and the ability to perform fundamental muscular skills with 5th and 6th graders. Creed (1946) found significant relationships between recreational participation and industrial efficiency. Differences that were identified by participation vs. non-participation received the attention of Sperling (1942) who found significant differences in the personality patterns of varsity and intramural athletes as opposed to the non athlete. Level of ability did not appear to be as great a contributing factor as that of participation.

The American Association of Health, Physical Education and Recreation, as recently as May 1968, conducted a national symposium on perceptual motor theories as they relate to physical education in the elementary school. Philbrick (1968) prepared an annotated bibliography of selected reading for perceptual motor learning. It is encouraging to note that physical educators are beginning to take a closer look at the needs of all exceptional children.

A leading exponent of perceptual motor learning has been Dr. Kephart of Purdue University. He has been concerned with the slow learner, but much of his program has been widely used by educators in the general area of mental retardation. In addition, Barsch's "movigenic" curriculum was developed for the learning disabilities but can make a significant contribution in the area of the visually handicapped.

Kephart Theory

Briefly, Kephart has taken the position that all behavior is movement of one kind or another, and movement constitutes learning units that contribute to total knowledge. Motor behavior then becomes fundamental to the learning process. In Cruickshank (1966) Kephart states that motor skills need to be automatic if the child is to exert some influence over his environment. He makes an early distinction between a motor pattern and a motor skill. The skill is the more specific of the two, but our major goal is the accomplishment of patterns. Walking is a skill, while locomotion in general is a pattern. Kephart states that the higher levels of functioning such as generalization, perception, and concept formation are all based on the primary fundamentals of motor response. To express it another way, if energy is diverted for the sake of motor functioning, so that our student is forced to think about his movement, he will have difficulty in making generalizations.

There are four motor generalizations which are essential to the attainment of higher levels of functioning. These goals may be listed as: (1) balance and maintenance of body posture, (2) locomotion, (3) contact, and (4) receipt and propulsion. Let me focus on each of these components, and suggest activities which would be appropriate for a visually handicapped child, keeping in mind his needs as well as the rationale expressed by Kephart.

The activities, games, stunts, etc. that I suggest are based on my background in physical education and orientation/mobility. Each of you is encouraged to evaluate them from your point of view; you will soon recognize possible applications, whatever your situation.

Balance and the maintenance of body posture

The objective of this generalization is to maintain an adequate relationship to gravity, aware of the point of application and its direction. This suggests that we provide the student with some consistent spatial organization. To develop an awareness of "uprightness' any number of locomotor skills could be used, such as the skills of walking, jumping, running, leaping, etc. Animal walks and other mimetic activities should prove highly satisfactory. The balance beam and balance board can provide challenge in the area of self-testing stunts. The trampoline can serve to focus on the gravitational forces with which we must contend. Kephart (1960) has utilized the walking board, jumping, skipping, and hopping as test items in his perceptual rating scale.

As we progress through these motor generalizations keep in mind the importance of practice and the repetitions necessary for skills to become patterns. Only the natural athlete or the gifted performer approaches the pattern level of performance. Opportunity for practice is crucial. An enormous amount of random motor experimentation is necessary for a visually oriented child. The visually handicapped child, in this respect, could be considered motorically deprived.

Locomotion

Locomotion seems especially important to the blind child. Only through locomotor generalization can the child observe the relationships of objects in space. Moving between two objects he observes their relationship, but in terms of Kephart, locomotion should be more than a skill, it should be a "happening". All of the child's energies should be directed toward the discovery of spatial relationships around him. The mobility specialist would probably tell us that conditions for learning depend on a knowledge of the environment and a high level of self confidence.

In addition to all of the locomotor skills, activities should include games which explore the environment such as hide-and-seek and treasure hunt, or chase games where a knowledge of the area is essential. Examples would be cats and rats, animal chase, tag, or lame fox and chickens. Structuring exploration by using such games as follow-the-leader, or Simon-says, may also prove useful. Provide some self-testing stunts which involve orientation skills since this would encourage exploration and locomotion.

Contact

Contact is concerned with the manipulation of objects through a reach, grasp, and release progression. The student observes relationships within objects or within a described field. From these motor observations Kephart feels perception of form and figure-ground relationships will be formed.

Applications for this generalization have meaning if we consider landmarks as being the foreground stimulus. Landmarks may be reached, used, and discarded or released. Activities involving handcrafts, recognition of forms, and even practice with tactile discriminations at a pre-reading level would seem appropriate.

Receipt and Propulsion

Receipt and propulsion is the investigation of movement toward the subject and movement away from himself. Activities which come to mind are those involving a moving object such as a ball, some body part, or even the sound of a moving automobile. The understanding of propulsion, directionality, and resultant forces are closely allied to activities requiring throwing, batting, kicking, hitting, catching or bouncing a ball. The simple act of pushing another person in a swing could prove to be an important activity. When possible, the use of auditory cues for directionality are recommended.

The activities I have suggested are not new. They can all be found in the publications of Dr. Buell in both written and movie form. They have been clinically validated in the sense that they seem to work. I know, however, that in many cases the behavior we elicit does not require motor activities that are necessary for the generalizations just mentioned to become patterns. For our convenience the child may be deprived of the very experiences which would eventually free us to be more effective teachers.

In this part of the presentation I have attempted to focus on motor patterns, and their development. Kephart has made comments on veridicality, perceptual motor match, and time structure which I feel are important, but are not relevant to this discussion.

"The Movigenic Curriculum"

The theory of "movigenics" as formulated by Dr. Raymond Barsch (1968) is based on the learner seeking efficiency in physical and cognitive movement. And I quote - "Man is a constant seeker of data, his survival depends on a constant need to process information." The achievement of movement efficiency was seen as dependent on fifteen basic components which were grouped according to (1) Postural transport, (2) Perceptual cognitive modes, and (3) Degrees of Freedom. It is my purpose to focus on the specific components in each group and suggest activities or procedures which have significance for me.

Postural Transport

The components of postural transport are muscular strength, balance, body awareness, spatial awareness, and temporal awareness. Some components are similar to those suggested by Kephart. This is quite natural, because when working with physical objectives it is almost impossible to focus on or isolate one and demonstrate that its accomplishment is specific in nature. Many activities may be used to gain the same objective and on the other hand one good activity can account for many significant outcomes.

Muscular strength may be achieved through any number of activities which require the use of a force and a resistance. Parts of the body may be used as in conditioning exercises, or the use of apparatus may serve a similar function. There is a minimal degree of fitness necessary for the development of kinesthetic awareness, which will be discussed in more detail later.

Balance is very related to muscular strength and the activities for one are appropriate for the other. Going back to the discussion of balance according to Kephart will serve to illustrate the type of activities I have in mind.

Body awareness or body image are the concepts needed for the attainment of spatial relationships. They are in fact prerequisites to accurate spatial concepts. By grouping spatial awareness with body awareness I feel I have more latitude in presenting the spatial organization and structure which Barsch provides. Perhaps you should put a star beside these components, because for me they are significant contributions to the area of the visually handicapped.

Before I get carried away with his spatial organization, let me suggest activities that would contribute to body awareness. The child should recognize the position of his body and this could come through stunts such as wring the dishrag, rhythmic patters individually or with partners. To add an element of speed try the reaction-type games such as musical squat down, Simon says, or stop and go. Feedback is so important that the student should be questioned concerning his position at every opportunity. He should develop a feel or kinesthetic awareness when he is accurate. Tumbling stunts and swimming would seem very appropriate for the tactile sensations achieved when moving a limb through the water.

Barsch, in his spatial organization, defines space as "an abstraction derived from the relative interval between and among objects requiring always a referent and a terminal point". The fields of space are right and left, divided by a ventical plane; front and back divided by a line extended from within the body laterally toward infinity; and up and down which is defined in more visual terms. By this I mean the dividing line is a diagonal from the eye of the subject to a point some six meters ahead on the floor. I think you can see that spatial organization is closely related to the individual, actually being a part of him. Spatial relationships are also dynamic in nature, never being constant or fixed. The structure of the environment is relative to the individual's position at all times.

Barsch related the concept of learning to participation in the experiences that were provided. He certainly sounds as if he is talking about a blind child when he says, "From infancy onward the performer must learn to locate objects, events, and happenings in those respective fields. He must identify, differentiate, and discriminate fields of experience and move in response to those experiences provided."

The "movigenic" approach further structures three zones of space. Near space is a two foot distance associated with reach, grasp and release. This is the performance area for manipulation. This is the space that must be most thoroughly organized for the highest possible levels of efficiency. The next zone outward is midspace which would approximate two to sixteen feet in all directions. In operational terms it is a distance that can be managed in a few steps. Far space extends from 17 to 30 feet and was determined through a visual context.

Before going on, let's quickly look at what these zones of space mean to the blind child. Near space must provide security. Midspace may be highly significant from a research point of view. Beyond this space we can see the problems of veering and effective sound localization developing.

For some time the orientation/mobility specialist has utilized a spatial structure in his program sequence. He has chosen categories such as indoor-outdoor, or the progression from home to neighborhood to downtown business areas. At this time I am in favor of looking at the model of Barsch since it provides a structuring in operational terms that we need for research purposes.

Perceptual Cognitive Modes

The second major group of components are gustatory, olfactory, tactual, kinesthetic, auditory and visual. These components acquire information necessary for the survival of the organism. Due to limitations of time and the emphasis that has been placed on motor development only the tactual, kinesthetic and auditory modes will be discussed in any detail.

The regular classroom teacher can offer many contributions to the development of tactual perception. Just consider the arts and crafts or the manipulative activities where the student can focus on the relationships of objects to the real thing.

The kinesthetic mode requires a "feeling of motion". Barsch points out that kinesthetic organization is not necessarily the product of customary experiences. In other words kinesthesia doesn't automatically follow a regimen of walking, creeping, and crawling. As mentioned earlier an efficient kinesthetic system is dependent on minimal levels of muscular strength. Of great importance is the feedback system involved in this mode. "Only as the individual can perceive his own movements can he make the necessary modifications to improve his efficiency".

A whole group of activities came to mind as I thought about this mode. Basically they could be termed relaxation exercises, such as, systematic, and conscious contraction and relaxation of the large muscle groups about the body. With practice the child could become conscious of differences and be better equipped to think about his movement and how it "feels". An added feature of this type of exercise is that the rate or speed of movement can be controlled.

The auditory mode is one of our distance senses and as such serves to scan the environment for us. Our interest with blind children certainly requires us to focus on the localization, discrimination, differentiation, and eventual classification of sounds in the environment. Activities with high degrees of structure and the totally unstructured situation where you listen to traffic sounds are equally important. Again the classroom teacher has much to offer. We are just beginning to explore the variables in listening through compressed speech and although the data do not support increased effectiveness through practice I wouldn't ignore the possibility, especially for this age group of children. On the playgrounds most games require an awareness of others in the spatial fields. Object perception of course is dependent on the auditory mode, and we are constantly encouraging the student in this area.

The visual mode is at the top of the percepto-cognitive hierarchy. It is the most important, because it can not only scan for information as a distance sense, but can also discriminate so much more effectively. Unfortunately we have been deprived of using this mode, and possibly we have been more restrictive than the situation warranted. The enhancement of visual perception is an exciting concept but, as you must also realize, most complex. It is so complex that one session of this conference has already been devoted to it, but I would recommend the study of Barraga (1964) as a pioneering effort.

Degrees of Freedom

The third and final group were considered to be components which serve to enrich the learner. Bilaterality is concerned with the development of both sides of the body. For example, Barsch has used the term bilateral balance which can be observed behavior as the child rolls along the ground or performs repetitive vertical jumping. He feels that the body needs to make an equalized contribution. Unequal thrusting patterns pull the body off line. A major objective of having young children jump on the trampoline is to gain control and have the ability to land in the designated landing area. For me this concept has implications for correcting the tendency to veer that we see in many of our children.

Rhythm as described by Barsch takes the form of a reach, grasp, release, type of orientation. In this respect it is quite similar to the area of motor generalization called "contact" by Kephart.

Flexibility according to movigenic theory has a counterpart in agility as described by the literature of physical education. In both areas it is the making directional changes with ease and grace, comfort and economy, and above all with control. Activities which contribute to this attribute have to be structured so that the child has confidence to move about in his environment. Games requiring dodging and running would be appropriate. Simple apparatus and tumbling stunts certainly focus on body control. It seems apparent that flexibility, like all of the degrees of freedom, depend on earlier phases of the program for their determination.

Motor planning is dependent upon an adequate understanding of resultant forces and an accurate concept of body image. An example from mobility is using the cane as an extension of the arm and having an understanding of where and how the tip is moving when a force or direction is applied at the wrist. All of you have had the same experience when teaching the young child to use an eating utensil. In more general terms, it is an understanding of the consequence of movement.

My intention has been to present theories based on clinical and diagnostic techniques and recognize them as such. The programs could not and should not be accepted in their entirety. On several occasions I have alluded to possible research implications. Research should be based on a try-out period and have a basis in practice. To be effective we need to define the researchable questions.

The programs have meaning for me based on my experiences, and I hope that I have been able to communicate some of that feeling to you. Rosenthal (1966) has shown that teacher expectations can significantly affect the learning potential of students. I recognize this phenomenon as I ask you to consider very carefully a motor approach to learning. As you study the area more closely

I know you will feel more strongly about it. We are all interested in the enhancement of learning; why not through motor activity?

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A 1968 PROGRESS REPORT ON LISTENING RESEARCH AT APH

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Introduction:

At the Salt Lake City Meeting, a first report of our long term research program on the use of recordings in the education of the blind was presented. In this project, it is our plan to compare the relative effectiveness of listening and reading as media for education, to identify efficient techniques for use in study through listening, and to develop equipment and recordings especially designed for this purpose.

You may recall the report given in 1966 by Miss June Morris describing the outcome of our studies of the relative efficiency of reading and listening in study. These studies were conducted at both the elementary and high school levels and involved the curricular areas of literature, social studies, and science. Their results strongly supported the conclusion that while there were few absolute differences between amounts of learning resulting from reading or listening, in terms of time spent, listening appeared the more efficient medium. The possibility that this might not always be the case (for example, for very difficult or highly technical material) was noted.

Other Early Research:

We did not report at the Salt Lake City meeting on other listening research we had completed. One such study was based on analysis of intensive interviews of students who customarily used recordings in study. Since some of the results of this research provided the background for the research to be reported today as well as research currently underway, it might be well to summarize these.

> The most immediate impression given by the interview results was that many incompatibilities exist amoung the playback equipment, recording formats, writing equipment, and the techniques students utilize. For example, it requires two hands to operate a brailler in note taking leaving no hands available to operate playback equipment as it is currently designed. This makes it appear that use of recorded texts, as described by these students, is no more than a makeshift expedient. For it to become any more than this would require development of a system of playback equipment, recording formats, and user techniques specifically oriented to the task of study. The interview material provides partial information needed to describe this task. However, additional data are needed.
>
> Some of the specifications for adequate playback equipment can be inferred from students' comments. A primary need seems to be for control systems which can be knee or foot operated. Disc equipment should have both forward and backward movement allowing for easier place finding and repeated listening. A wide range of speeds (perhaps continuously variable) should be available to help in scanning and place finding.
>
> Possibilities for development of recording formats can also be inferred. Techniques are needed for making page numbers and other entry information stand out from the text so as to be obvious for search purposes. This material should be presented at much faster speeds than the text material to facilitate search. Textbooks should have braille or large type supplements for tables of contents, indexes, glossaries, and certain graphics.
>
> Techniques for use of recorded text materials should be described and students instructed in these. For many students the listening experience appeared to be passive to the extent that little learning seemed possible. The student should actively engage the material. Note taking is one means of doing this. Although it appears that recorded note taking techniques may be most efficient, almost no use of these was reported. It seems that many of the techniques suggested by learning theory and described for use in study by reading would be applicable also for listening.

> This information should be available to blind students. The fact that students reporting active techniques (note taking) proved to be better listeners supports these conclusions.

It was the latter conclusions, stressing the importance of active engagement of the student in the listening study process that stimulated the research to be reported here. The purpose of this research was to compare learning achieved through active and passive listening.

Research on Active Participation in Listening:

During the course of our previous research on listening, we have been concerned continuously with the problem of attention. Postures assumed by subjects during listening (ranging from upright businesslike attitudes to cradling the head in the arms on the desks) suggested a variety of degrees of attentiveness. In our interviews, attentive postures were mentioned as critical to good listening and the necessity for activity during listening was emphasized. Such activity could be peripheral to listening activity, i.e. knitting, or could constitute active involvement in the listening learning process as in taking notes.

These comments of students on the necessity for activity are supported by evidence long existing in psychological literature. A favorite example of the effects of peripheral activity on learning is the experiment of Bells and Stauffacher (1937) where subjects who memorized material while squeezing the handgrips of dynamometers learned more than subjects who did not engage in this activity. Another example is an early study by Gates (1917) which showed that recitation while learning facilitated the learning of lists of nonsense syllables and short biographies.

Consequently, it appeared important to confirm empirically the effects of active participation on learning through listening. At the same time, it appeared of interest to compare learning at normal listening rates with learning at compressed rates under conditions of active and passive involvement. Foulke and Sticht (1966, p. 27) suggest that comprehension of compressed speech deteriorates at increasing rates of compression because the rate of information input exceeds the information handling capacity of the auditory channel. If this is the case, interruption of the message for recitation could result in greater facilitation of comprehension for compressed materials than for those presented at normal rates of speech.

Since earlier research (McClendon, P.I., 1956) had indicated that note taking during lectures had little or no effect on listening comprehension, it was decided that active participation should take the form of repetition of material.

Procedure:

Six similar studies were designed to compare learning achieved under active and passive conditions of listening for material presented at normal and moderately compressed rates. Studies involving three curricular areas were conducted at both the elementary and high school levels.

Subjects in each of the six studies were equally divided among three modes of listening: (1) continuous listening, (2) listening interrupted at four intervals for 45-second periods during which time subjects were to mentally review what they had just heard, and (3) listening interrupted at four intervals for four-minute periods during which time subjects were to make written notes on what they had just heard. In addition, subjects within each listening mode were equally divided into two groups which listened to the material presented at two different word rates. Immediately following listening, all subjects were tested for comprehension.

A special feature of these studies was the technique used to assure high levels of motivation. At each research site, participants were told they had been divided into equal groups that were to participate in a "listening contest" and that each member of the group achieving the highest average score would receive a prize as a reward. The prize was a box of candy, but subjects were not apprised of what it would be. Elementary groups competed only with other elementary groups and groups from the upper grades only with others from their level.

Matierals:

The materials used to study listening techniques were taped recordings of the same six selections as were used in the listening research reported earlier in which efficiency of learning by listening was compared with that of learning by reading. The selections included material at two levels of difficulty for three subject areas: literature, science, and social studies. One level of difficulty was appropriate in language and content for students in the elementary grades and the other for students in the upper grades.

For the present studies, the selections were reproduced at two word rates; one being the normal uncompressed rate of approximately 175 words per minute (wpm) and the other being compressed to approximately 225 wpm. The Tempo Regulator, as modified and used by the American Printing House for the Blind, was the device used for compression.

Braille multiple choice tests were used to measure comprehension. Subjects were given as much time as feasible to complete their tests. Scores were prorated for those not finishing if they had attempted to answer 85% or more of the questions.

Braillewriters and/or slates and styli were provided for those subjects required to write. Subjects were premitted to use either the one to which they were most accustomed or the one they preferred.

Subjects:

All subjects taking part in the study of listening techniques were legally blind students enrolled in regular classes at 15 residential schools for the blind. Each customarily read and wrote braille. A total of 720 participated: 240 in the literature part, 240 in the science part, and 240 in the social studies part. One hundred twenty of each were selected from grades 4-7 (60 from grades 4 and 5 and 60 from grades 6 and 7) and 120 from grades 8-12.

Two levels of elementary subjects were used as previous research and uncovered significant grade level differences within groups using the same material. Each elementary treatment group consisted of 10 subjects from grades 4 and 5 and 10 from grades 6 and 7. As earlier work had found no grade level differences between students in upper grades, these subjects were selected without regard to grade.

Results:

First, let's consider the question of whether more active participation in the listening process increases comprehension. The answer is a qualified - yes, it does.

At the elementary level, this effect occurs only for the material which was compressed to 225 wpm and occurs for all curricular areas. Generally, the note taking form of repetition produced superior comprehension.

At the high school level, from the overall standpoint, note taking again produced comprehension superior to that for the other modes of listening. However, the extent of this result varied with the type of material. The effects were very strong for literature and social studies. They were less obvious for science. For literature, the mental review type of repetition was as effective as note taking.

Let's next consider the question of differences between comprehension for materials presented at regular and compressed rates. As we have seen, at the elementary level, active participation in listening resulted in improvement of comprehension for compressed materials only. At the high school level, however, the effects of active participation in the listening process were similar for materials presented at regular and compressed rates.

One peripheral finding was quite unexpected and surprising. In five out of six possible occurrences, students comprehended materials presented at regular rates (175 wpm) considerably better than those presented at compressed rates (225 wpm). This is in contrast with all other research, where speech rates were increased to 250-275 wpm before difference in comprehension between these and normal word rates occurred. The only apparent difference between our studies and those conducted earlier appear to be motivational. In the present studies a high degree of motivation was achieved through the "contest" approach. These findings imply that, under conditions of high motivation, the advantages attributed to use of compressed speech may be suppressed and that regular rates of speech may be more effective in educational communication.

Research Planned for the Future:

Now, just a word about future activities. During the forthcoming year, we plan to pursue two goals of our project: (1) Continue comparing the relative efficiency of reading and listening as means of learning and (2) develop equipment and recordings especially designed for use in study.

One project now being initiated will compare reading and listening comprehension for blind students in low ranges of mental ability. In earlier studies of braille reading by such students, we found that those within the IQ range of 65-85 read slowly; at about 50 wpm. The job of learning to read braille is extremely difficult for this group and, because of the poor techniques evolved, comprehension is poor. In effect, braille reading for this group may comprise an additional educational handicap. Consequently, listening may be a superior medium for education of these students. This is a question that will be investigated this year.

Another project is stimulated by a finding of our user interviews which was summarized earlier. This was the finding that the design of the recording equipment and materials used by students in study appeared to be based on recreational instead of educational requirements. In view of this we plan to attempt to develop a system of recording equipment and materials specifically designed around study requirements.

Development of two study systems is eventually envisioned; one using magnetic tape input and one using pressed disc input. Initial emphasis in this project will be on the pressed disc system since capability currently exists for high volume production of recordings in this form. Specifications for the system will be derived from a task analysis of the study job. Since this is not complete at the time of this writing, complete specifications for the system are not available. However, on the basis of the informal analysis made to date, directions of development can be indicated.

The current Talking Book Reproducer will be modified in a variety of ways. The turntable will be made to run both backward and forward. Forward movement, at least, will be continuously variable over a wide range of speeds. Controls for start-stop, forward-reverse, and turntable speed will be designed for foot or knee activation.

Recorded textbook formates will be modified and supplemented by braille and large type materials such as indexes.

Recording methods will be developed using stereophonic techniques which will allow two sound tracks to be recorded in a single groove on the disc. One sound track will contain the text and the second sound track page numbers and index information. The user will be able to switch tracks at will. Differential in speeds of recording tracks one and two will provide for slow text playing speeds on track one and rapid search on track two. A desirable part of this development will be exploration of recording at four revolutions per minute.

Response equipment in the system will be either a braillewriter or a large type typewriter. Use of a tape recorder in the response system will be explored.

An instruction manual will be written for the system describing its use and emphasizing techniques for study based on learning theory.

This, then, is our progress in listening research to the present. We hope to be able to report further progress to you in 1970.

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"I WAS A 97LB. WEAKLING"

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Books are important to the blind student. They are his way of discovering much about his world that is important to him, and they are also a means of filling leisure hours with a pleasurable pastime. For students with normal vision the local public library can fill these needs, but the blind student must rely primarily on the library of his resident school for three fourths of his learning years. In addition, we now look to school libraries as resource centers--centers capable of furnishing a wide variety of materials to supplement all areas of the curriculum and serving as the nucleus of the educational facility.

Some of you may recall those advertisements of years ago which advertised, "I was a 97 pound weakling: then Charles Atlas helped to make a man out of me." That was KSB a few short years ago--a 97 pound weakling when it came to library materials. A substantial collection of materials in all appropriate media is necessary to fulfill education obligations, and in order for the library at KSB to serve students and faculty better it became obvious to school officials that steps had to be taken to bring the collection and services up to accredited standards.

That was four years ago, and at that time the total collection, comprised of braille and talking books, totaled approximately 900 titles. Today the available collection contains well over 85,000 titles--truly, we are no longer a 97 pound weakling. And, like those who turn to others for help, we, too, turned to someone outside of our own school for assistance in achieving this, to us, spectacular growth.

The story really begins back in 1949 when the Louisville Free

Public Library received a considerable sum of money from the city fathers with which they purchased the needed equipment and materials to establish the first public library owned and operated FM broadcasting station. Ultimately, two stations, WFPK and WFPL were to air programs. These stations, along with the many other activities of the library's Audio-Visual Department, are under the direction and supervision of Miss Dorothy Day, Department Head. With her excellent direction, the Department has built a collection of audio tapes in excess of 80,000 titles, ranging from stories for the primary grades through lectures projected toward the adult level. In addition to these programs (usually referred to as "talk-talk" programs) the Department's collection also contains at least one rendition of each classical music composition listed in the *Schwann Catalog*. The "talk-talk" tapes include commercial recordings which the library has purchased and tapes provided through the NAEB on a sustaining basis. The musical recordings include, along with the commercially purchased recordings, the original recordings of the Louisville Symphony.

This material is available to any library patron even though it is housed in a permanent, "non-circulating" collection and cannot be copied. It is available, of course, by listening on a non-selective basis to either of the two radio stations, but it is also available on a selective basis through a second program of the Audio-Visual Department.

Immediately after the broadcasting stations went on the air the library began to make its audio-visual materials available to any non-profit organization in the city by means of direct telephone lines between the library and the organization. These are "balanced" lines of exceptionally high fidelity. The cost to the organization for this service is the monthly charge which the telephone company makes to its subscribers--the library does not charge for this service.

As plans were being made for the new classroom building for KSB, which was completed in 1963, a fine intercom system was incorporated into those plans, and this equipment has made it possible for each room in the classroom building and for the residential cottages to be tied in with the "wire network" of the Louisville Free Public Library's Audio-Visual Department. One line has been in use since February, 1965 and has averaged 160 hours of listening during the school year of programs lasting 15 to 30 minutes each.

I, as Librarian, either select or assist in the selection of appropriate programs from an extensive catalog. After the selection has been made the faculty member designates the day, hour and room into which the program is to be played. (Programming is normally done on a weekly basis, but there are times when, because of a sudden change in schedule or routine, programs are requested immediately and the library is usually able to oblige us by having them "on the wire" within 10 minutes.)

Normally, the Department's engineers receive our weekly request lists at the Department during the weekend. They then locate the proper tapes or phonorecords and transmit them at the requested times during the following week via the closed circuit. Before the program begins the intercom (to which the program is sent) is connected to the room into which the program is to be relayed.

Initially this service was rather time consuming, but as each faculty member became more familiar with the materials available the operation has become more efficient and the materials used to a better advantage. This program has not only enabled us to produce the right materials at the right time for a unit of study, but it has also been an aid to the junior and senior high school students working on term papers. This use of the wire network by our students may also be of benefit to them after graduation, for if they attend any of the five colleges and universities in Louisville or one of the two theological seminaries, they will already be familiar with the network--indeed, some of the faculty members of these schools will pre-record their lectures for students when they (the faculty members) must be out of town on days during which classes are to meet.

Copyright laws do not permit copying of the programs available at the library, but with this service also available at any of the branches of the Public Library and directly to the school, copying is not necessary.

In summarizing this aspect of our library program at KSB we doubt very much that any other library has been able to grow from 900 titles to over 80,000 titles in less than 5 years and for less than $19.00 per month!

But the assistance of the Public Library does not end with the Audio-Visual Department. The Reference Department staff is always willing and able to give us assistance whenever our still-limited reference collection proves inadequate, and one of the major branches of the Public Library system is located just a short distance from our school and is always willing to lend materials on inter-library loan.

Not forgetting our good neighbor and associates at the American Printing House, the Resource Center, under the direction of Mr. Carl Lappin has given and will, we hope, continue to give us assistance at every turn, assistance which will expand as they expand their services each year. Of special interest to us is their very complete catalog of hand-transcribed children's books and they are always willing and able to assist us in locating specific materials which are needed. Information on large print materials is another aid from this Instructional Materials Reference Center at APH.

One other institutional source can be considered in many communities, Louisville included, and that is the local museum. This may be an historical museum, a museum of natural history, or a museum having a single purpose such as a railroad or aeronautical museum. As we well know, bulletin boards and other printed exhibits which are necessary to promote reading are certainly not very practical in a school for the blind except on a limited basis. They may be practical for general ammouncements, news items, lists and annotations of new books (if brief), but there are few substitutes for pictures.

In an attempt to arouse interest in the children, in reading, we began a program two years ago of borrowing tactual materials from local museums. The museum of the Public Library was the first to allow us to borrow items which the children have found fascinating. The Junior Art Gallery has contributed exhibits from their collection, including a fine exhibit entitled "How a Sculpture Grows" which was created for them by the Sculptor Barney Bright. The Howard National Steamboat Museum has loaned materials to us on the lore of the river and the days of the steamboat.

In addition to these institutional loans many individuals in the community have been generous with their own personal collections ranging from mounted and stuffed animals and birds to a fine collection of Japanese items from a school girl. Other items have included a collection of fossils from a local site along the Ohio River, long famous as an important fossil bed in North America. Each of these exhibits has been gathered together personally or borrowed with the complete understanding of the lender that they were to be touched and handled by the students.

The displays are kept for a period of 3 to 4 weeks on a special table in the library where the children are urged to come at their leisure or as a class group to examine them and to ask questions. They have shown a great deal of interest in these displays and it is hoped that these will be the fore-runners of a permanent collection. However, this would not be a collection which would necessarily be owned or housed in the school or library, but more a collection in the community which could be available at definite times and which the owners would be pleased to lend for this purpose.

It is hoped that these services which have been briefly outlined will help to point out some of the many and varied possibilities which can be found within any community. A little "creative thinking" on our part can produce many, many more. Cooperation from the community can not only aid the educational resources of our schools but they can also foster a good public relations program. Many people are willing to help their fellow man but they need encouragement and guidance in their manner of service. As those "97 pound weaklings" of yesteryear needed the help of a stong "Charles Atlas," so do we need the help of our communities. We can determine what we need, but then we must also determine where, and how, and who can best assist us to fulfill that need.

INSTRUCTIONAL MATERIALS REFERENCE CENTER

FOR THE VISUALLY HANDICAPPED

Carl W. Lappin, IMRC Director

American Printing House for the Blind
Louisville, Kentucky

In discussing the Instructional Materials Reference Center for the Visually Handicapped, I feel that it is important for you to know a little of the background of the American Printing House for the Blind.

In 1858 the American Printing House for the Blind was founded and it is the oldest national agency for the blind, private or public, in the United States. Today it is by far the largest publishing house for the blind in the world and the only independent institution devoted solely to the publication of literature for the blind and to the development and manufacture of tangible aids for their use. The Printing House is also unique in that for 89 of its 110 years it has been the official schoolbook printery for the blind in the United States.

The Printing House had its origin in the Kentucky School for the Blind which was founded in 1842 as the third state supported school for the blind. In those early days, each school for the blind endeavored to provide its own educational materials. The Trustees at the Kentucky school soon realized the excessive waste of such duplication of effort, and set about establishing a national, non-profit printing house which could meet the combined requirements of all schools for the blind. As a result, the American Printing House for the Blind was chartered as a separate corporation for this purpose, with the members of the then board of the Kentucky School serving as four of the seven original incorporators.

For the first 20 years, the Printing House supplied its materials on a cash basis and through funds raised by several of the states. There was demonstrated the need for a more adequate and permanent source of funds for books and instructional materials for all the schools. In 1878 the American Association of Instructors for the Blind asked Congress for an appropriation for this purpose. As a result, in 1879 Congress passed the act to promote the education of the blind.

On the first Monday in January of each year a registration is taken of all the blind pupils attending public educational institutions of less than college grade throughout the United States, and quota allocations are made to the residential schools and state departments based on this registration. The registration of pupils in grades one through 12 as taken January 1, 1968, was a total of 20,266.

Historically, the growth of the Printing House is reflected in almost direct proportion to growth and expansion of all work for the blind. As the horizons of our educational and other service programs have widened and changed, so have the services of the Printing House expanded and increased with the changing of each era. During the first 20 years of its existence, the total annual budget seldom exceeded $10,000 and the entire staff consisted of 6 to 8 full-time employees. At the present time the operating budget is over $3,000,000 and the Printing House employs a staff of some 400 full-time and 40 part-time employees.

Obtaining appropriate materials for education of visually handicapped children is a problem of long standing with educators. The total number of such children is relatively small and they are widely scattered amoung a variety of educational programs. As a result, only small numbers of textbooks of any given titles are required and only small numbers of an educational aid are needed, making commercial manufacture of most of these items impractical. While many commercial materials are useful for education of the visually handicapped, the task of discovering and/or adapting these materials is often great. Since its establishment, the Printing House has served as a principal source of many of the materials required. The local efforts are often duplicative and wasteful of effort. Of even greater importance is the fact that local solutions to materials problems are rarely communicated above the local level. It is our hope to locate items not only manufactured by commercial firms but also those devised by teachers, and through dissemination of this information, encourage wider use of these valuable materials.

The functions of the materials reference center are several and will serve to overcome some of the problems mentioned.

First, the center provides a single national source of information about the availability of educational materials for the visually handicapped from all sources. Second, the center provides a program for the development of additional materials when needed. Third, the center provides a means of formally communicating and demonstrating the availability and methods of use of such materials for educational programs and teacher training facilities.

The present structure of the American Printing House includes such sub-units as the editorial department, data processing department, recording department, educational research department and production department. The center itself is divided into three sub-units with the following functions: 1. Data Storage and Dissemination. 2. Materials Development. 3. Materials Evaluation. All these units are distinct but will overlap somewhat in function to attain the objectives of the center. The center exists within the confines of an institution that has the reputation for providing services far exceeding its role as a material producer, which makes it a focal point for inquiries regarding problems of all kinds relative to education of the visually handicapped.

Primary goals and objectives of the Instructional Materials Center are as follows:

1. To establish and maintain a central catalog of information about curricular and instructional materials for visually handicapped children.

2. To supply upon requests lists and descriptions of materials available for specific purposes together with information concerning their sources, cost and usefulness.

3. To discover, to describe and evaluate materials already developed locally or commercially for use in educating visually handicapped children.

4. To develop new materials or adapt available materials and evaluate their usefulness.

5. To develop manuals of sets of instructions describing how the special materials for visually handicapped children should be used.

6. To provide a steady flow of information concerning available materials to the field through the publication of a news letter and frequent articles in appropriate periodicals.

7. To provide exhibits, lectures and demonstrations on educational materials to professional meetings, teacher training programs and school systems.

8. To evaluate the usefulness of a materials center in the field of education for the visually handicapped.

The services currently being offered are those services of the central catalog of volunteer transcribed materials. The central catalog of volunteer produced textbooks and children's literature books which is maintained in card file form has become a valuable source of information for the benefit of transcribers, school administrators, teachers, librarians, students, parents and all workers for the blind who need material in braille, large type, disc or tape recorded form.

From rather modest beginnings as a list of hand transcribed braille textbooks available for loan or reproduction by the thermoform process, the catalog has grown so rapidly that we hate to predict the eventual size of these listings. The file now contains some 30,000 completed titles and 5,000 titles in process, covering books in braille, large type, tape and disc recorded form. The daily growth of the listing is caused primarily by two factors: The steady growth of increased productivity of volunteer transcribing groups all over the country, and more efficient and conscientious reporting of work completed and in process.

The purpose of the central catalog is twofold: 1. To make possible a single service which will coordinate the reporting efforts of all agencies, groups and individuals producing literature for the blind on a volunteer basis and at the same time make possible a single point of reference for schools, students and blind readers needing a particular educational title. 2. Another purpose of this catalog is to provide for the clearance and recording of permissions from ink print publishers through blanket agreements which publishers have extended.

You may ask how a teacher, school administrator or interested person might use this file. Our first request is that people check all available catalogues of publishers of materials for the blind, and if no listing is found from any of those sources in the form desired, an inquiry should be made at the Printing House as to whether it is available elsewhere, always specifying the exact title, author, publisher, copyright date and grade level. School grade level is most important for elementary school textbook titles. The media needed is also important. All inquiries receive immediate attention, and if the title has been previously transcribed the Printing House will provide the address of the depository or if the book is currently being transcribed somewhere the name and address of the transcribing group will be provided. A few minutes spent in trying to locate a book can save many many hours of unnecessary transcribing and also make full use of any single transcription. Inquiry can be made as to whether the book is available for loan or copying.

The future plans of the Instructional Materials Center can best be summarized by outlining the sequence of development that will occur in the next three years:

Accomplishments to date are as follows:

1. Remodeling of space required for the center
2. Developing a catalog of currently available materials (educational aids)
3. Search for materials commercially or locally produced
4. Begin informal dissemination of information through replies to inquiries.
5. Development of new materials
6. Field testing of new materials
7. Displays of materials in the Center and at Educational Meetings

Plans for the next year include:

1. Begin writing user manuals
2. Demonstrations on new educational aids
3. Search out and develop more new aids, i.e. science kit, weights and measures kits, math aids.

The development group has the responsibility for the development of additional aids. This includes development of ideas put forth by educators and bringing locally developed aids to production stage and developing adaptations of commercially available materials so that these could be used by visually handicapped children. The evaluation operation is responsible for setting up evaluations of materials through a series of review panels and conducting field tests with materials. In addition, this group will be responsible for developing user manuals for educational aids.

A final report giving a detailed description of the center's operations will be sent to all state departments of education, residential schools for the visually handicapped, volunteer groups making materials for the visually handicapped, universities and colleges having special education programs. Continuing dissemination of information will be given to heads of all state departments and residential schools dealing with education of visually handicapped children or ex-officio trustes of the Printing House. The ultimate purpose of this center is to provide educators of the visually handicapped and related personnel with ready references for valid materials and information pertaining to the education of visually handicapped children.

It is the sincere desire of the personnel at the Printing House to give even greater service through this materials center. We hope that you will make it a point to visit the Printing House and observe some of the activities carried on there. Any ideas that you as teachers and administrators have concerning the education of the visually handicapped will be appreciated.

EDUCATIONAL AGENCY CO-OPERATION WITHIN STATE OR PROVINCE

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California provides education for visually impaired children at the California School for the Blind in Berkeley and in many local public schools throughout the State. In 1967 the total school population in California for grades kindergarten through fourteen was 4,519,371. Of this number special school services were provided to 2,481 blind and partially seeing students. In addition 143 blind and 14 deaf-blind students were enrolled in the California School for the Blind. Nine county superintendents and 69 school districts operated resource or itinerant teacher programs for the visually impaired. These programs were served by 215 teachers and 68 employed transcribers.

As early as 1957 it was realized that materials in the various media would be needed in quantity to serve these students so representatives from San Francisco State College, the California School for the Blind, the then-known transcribing groups and the State Department of Education met and later formed a group known as the California Transcribers and Educators of the Visually Handicapped, Inc. CTEVH meets annually for a two day conference planned jointly by the volunteer transcribers and school personnel. The public school programs are very dependent on the outstanding services provided by the volunteer transcribers.

In 1947 a small group of blind people and various agency representatives felt it desirable to plan to meet routinely to discuss common problems. In 1951 through legislation it became possible for representatives from health, education and welfare to meet four times annually. Later when rehabilitation became a separate department it also sent a representative. This Co-ordinating Committee on State Services for the Blind is composed of employees close to the problems of the field. It annually prepares a report of agency activities to be submitted to the Co-ordinating Council which is composed of directors of each agency. The Council reviews the report and submits it to the President of the Senate and Speaker of the Assembly. The Council also meets on a quarterly basis.

This year following several discussions in the Co-ordinating Committee the state library requested that a survey be made of library services for the blind. This resulted in a study by the Dean of the School of Librarianship of Berkeley. The study has just been reviewed by the committee and plans will be made for implementation of feasible portions.

Knowing that the rubella epidemic would probably result in a rather large number of multihandicapped children a five day institute covering all areas of special education was sponsored last fall by the State Department of Education with federal monies. It was felt this would alert key school personnel to the seriousness of the problem. Later in the year with federal funds from Title I of ESEA, two studies were initiated by the State Department of Education. Dr. Berthold Lowenfeld, retired Superintendent of the California School for the Blind, completed in May, 1968, a report on Multihandicapped Blind and Deaf-Blind Children in California. A similar report on Multihandicapped Deaf Children in California was completed at the same time by Dr. Donald R. Calvert, Executive Director of the San Francisco Hearing and Speech Center - a private organization. After reviewing the reports the Assistant Chief of Division of Special Schools and Services requested a meeting of the superintendents of the five state residential schools and the four consultants serving deaf and hard of hearing and visually handicapped children. The problems and recommendations cited in the reports were reviewed and discussed.

San Francisco State College, realizing the need for specially trained teachers following the rubella epidemic, requested a grant for teacher education in the area of the deaf-blind. With the assistance of the two teacher education centers in the state, the State Department of Education is working toward the completion of a teacher credential in the area of the deaf-blind.

Late this spring the California School for the Blind cooperated with two private agencies and held two preschool institutes - one in Los Angeles and one in Berkeley. The cooperating agencies were the Center for Blind Children and Variety Club Blind Babies Foundation. Both have provided preschool services to parents of blind children for a number of years.

Another example of co-operation has been in the area of mobility instruction. In 1966 legislation was enacted making it possible for public schools and the State Department of Rehabilitation to employ mobility instructors jointly.

One of the most helpful of co-operative efforts took place three years ago when the California School for the Blind invited the two Consultants in the area of the Visually Handicapped to serve on the Evaluation and Placement Committee. During the evaluation representatives from the local schools are invited to participate with the committee when a child from their district is being considered for placement or dismissal. This has proven most beneficial to all concerned.

In summary this has been an attempt to indicate briefly the numbers of visually impaired children being served in California and various types of activities in which the State Department of Education has participated on a co-operative basis.

SEX EDUCATION IN SCHOOLS - A RESEARCH PROGRAM

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Sex Education in a Changing World

Wide-ranging interest in sex education. No one need be told that sex education, whether in the home, the school, under church auspices, or among teenage groups themselves, has attracted a great deal of attention in the last few years particularly, but extending as far back as the early 1950's. As early as 1952, under the auspices of the Diocese of Detroit, Michigan, a group interested in family life education formed teams of lay men and women, clergymen, physicians, social workers, psychologists, and other professionals to conduct lectures and discussions with parents, in groups of 50 to 600, on how to give sex instruction to their children. This large scale, pioneering effort was not copied in many other places, but since that time programs of sex education have mushroomed in various parts of the United States and Canada in an effort to help young people with the problem of sexual growth and development, and to combat, or at least to prepare them for, trends in our society that can be detrimental to healthy sexual maturation and to a wholesome family life.

The interest in and the need for sex education are prompted by many happenings and trends in our rapidly changing and often disturbing world. We need not go into these facets of change to any great extent, since they are well known to all; but in order to set the stage for what we have to say later regarding the nature and the rationale of sex education, we would like to indicate what we believe to be the principal characteristics of contemporary thinking, and of society in general, that have altered the nature of the sex problem and the need for sex education to an important degree, so that the problem of sex education has different dimensions than it had ten or twenty years ago. For these reasons the sexual process, psychosexual development, sexual behavior and mores, and sex education itself have to be carefully researched, redefined in terms of changing social patterns, and then integrated into a program of interpretation and action that will meet the needs of young people as they push their way to maturity and family life, at the same time the demands of a dynamically changing society must be met effectively. We are all aware, this is not an easy task. It is beset with many dangers and pitfalls, with conflicts and disagreements, with prejudices and outmoded thinking.

1. The changing sex climate

For these reasons, it is important to take a sharp look at some pertinent characteristics of a changing society. The first item is the changing sex climate in America and in many countries of Europe and Asia. We are not referring here specifically to changes in sex behavior which have been researched pretty thoroughly by Kinsey and others who have followed him; but rather to the changing mores, attitudes, and ideals that characterize the contemporary world, and particularly the world of the adolescent and the young adult. It is this newer sexual *Weltanschauung*, rather than pornographic books and movies, psychoanalysis or free love, that have stimulated the cult of sexual freedom, sex on the campus, permissiveness with respect to premarital sexual behavior, and a somewhat cavalier attitude found in many sections of the population to extra-curricular sex among married persons. It is not always easy to tell whether the horse or the cart comes first, but certainly the history of social trends and intellectual changes in America indicated that the sexual problem begins more often above the neck than it does below the waist. In other words, premarital and extramarital sex are *symptoms* of a changing sex climate, rather than a cause.

In similar vein, the widespread increase in sexual freedom can be interpreted along whatever dimension one chooses, including the increase in and devotion to breast fetishism; unbridled feminism; topless dresses and mini-micro skirts; bikinis and nudist therapy; availability and refinement of pornographic material; liberalization of attitudes toward homosexuality as well as other perversions; development of tolerance toward highly sexualized books, movies, and plays; and even the sexualizing of toys for young children, and post cards for adults. All these phenomena, and many others, are more in the nature of symptoms of a changing sexual climate, than a cause of sexual misbehavior. If these things are undesirable from a social point of view, the remedy is not in vice squads, or teenage curfews, but in changing the climate of sexuality through education, discussion, publication, and propaganda.

2. The changing moral-religious climate

The changes in our sexual mores, attitudes, and ideals are mirrored in and reflect to a great extent the changing climate of the moral and religious convictions of contemporary society. It is generally agreed that the separation of moral values and standards from the objective concept of man as an intrinsically moral being, and the resulting development of situation ethics - to take the most glaring examples - has contributed a great deal to the undermining of an objective sexual morality and to the stimulation of sexual freedom whether in thought or in behavior. This growing looseness of moral controls is evidenced in the increased incidence of delinquency and crime, commitment to self-destructive drugs, and increase in alcholism among youth, just as clearly as in the violation of traditional sexual codes.

If to this disturbing, if not frightening, picture of the mores and habits of contemporary youth we add the influence of deep and pervasive changes in religion, including attitudial changes toward birth control, abortion, reduction of religious authority, belief in the death of God, and wholesale defections from religious commitment, we can easily see why sexual libertinism has had such a healthy growth in the past twenty years. The traditional command of the Decalogue "Thou shalt not commit adultery," has been altered in the minds of many young persons to read, "Thou shalt not commit fornication unless thou art in love and the situation justifies it."

3. The changing family pattern

To this picture of the changing climate for sex and sex education, we should add the disruptive effect of changing family patterns. Whenever parents are in conflict, separated, divorced, or married to other partners in a succession of relationships that were once strictly forbidden, it is difficult to preach sexual continence, legitimacy, or control. And it is even more difficult to create a psychological climate conducive to healthy and mature values, attitudes, principles, and practices regarding sex. Where there is little or no integral family life there can be little effective instruction. Apart from other cogent reasons, this is certainly one of the strongest arguments for transferring sex education from the home, where it traditionally belonged, to the school where a more effective job can be done.

None of these statements regarding the changing sex climate, sexual freedom, situation ethics, or the decline in religious influence should be taken as value judgments relative to sex behavior or sex attitudes. The intent here is not to evaluate the attitudes or behavior of young people, or of those who are older and already married, but simply to indicate why there is such widespread interest and concern for effective sex education programs.

In addition to these concerns, several others disturb a great many persons interested in the welfare of young people and of society. Two of these stand out prominently: the growing incidence of premarital pregnancies, and the soaring rate of venereal disease, including both syphilis and gonorrhea. The first of these statistics will undoubtedly be affected and possibly lowered by the widespread application of newer techniques of pregnancy control; and in the not too distant future, according to recent opinion in medical circles, we may expect that the dread disease of syphilis may be brought under control and eventually eliminated by the discovery of a vaccine that will prevent syphilitic infection. Nevertheless, an effective program of sex education must be directed in part toward the reduction of both of these unfortunate and sometimes destructive social phenomena. It may well be that these social stigmas will be eliminated in the foreseeable future, but at present we must realistically consider the possibility that large numbers of young people will still become involved in the stigma of unmarried motherhood, that children will be born without parents to care for them and to provide the security of family life, and that many youngsters will be threatened and even destroyed by the ravages of venereal disease.

Sex Education Research in Massachusetts

During the past four years the Commonwealth of Massachusetts has financially supported a three-phase research program directed toward a broader comprehension of the need for sex education in both the public and parochial schools of the Commonwealth. The first phase of this study was a carefully designed investigation of the effectiveness of films, depicting the physical outcomes of venereal disease infection, on the knowledge and attitudes of high school students in six carefully selected parochial schools in the Boston, Massachusetts area. Six hundred students, evenly distributed among boys and girls, were singled out for the investigation, which utilized three well-known films as the focal point of study. The research design was relatively simple, involving the presentation of the films, administration of a knowledge and attitude questionnaire based on the film presentation, and a follow-up study six months later, with the same questionnaire, to determine the continuing effects of film presentation. While the results were not conclusive, the study did indicate that students in the senior year of high school can be positively influenced by exposure to visual material that emphasizes the threat of venereal disease infection. At the present time, there is a follow-up study being conducted to determine the efficacy of such material after a lapse of several years.

The second phase of this program, also supported by a grant from the Commonwealth of Massachusetts, involved research into the problem of sex education for venereal disease control. Out of this research we developed a manual of some 200 pages for teachers at the junior high school level. This manual was evaluated in a one-day workshop held during July of 1967 at Boston College, to which 60 junior high school teachers, principals, and superintendents of schools, as well as several experts in venereal disease control, were invited.

The third phase of this research into sex education is going on at the present time and will eventuate in the publication of a manual on sex education for teachers at the fifth and sixth grade levels. Preliminary to the development of this manual a questionnaire was circulated among 105 selected public high schools in the State of Massachusetts and all of the parochial schools in Massachusetts relative to the existence and type of sex education program now available to students. The results of this questionnaire will be used to determine both the content and the format of the manual. This research project will be completed by January 1, 1969, and will be published in July of the same year.

The Why of Sex Education

The changing sex climate creates a demand for adequate sex instruction but it is even more important to recognize the needs within the young person for knowledge, attitudes, standards, and controls related to the phenomena of human development.

It is the developmental process, the ineluctible movement toward maturity and adulthood and all the responsibilities that these terms imply, that answers the question: Why sex education? This developmental process also indicates the intrinsic relationship between the WHY of sex education and the HOW. Such questions as what? how much? when? by whom? under what circumstances? can be answered only in terms of the developmental needs, characteristics, and patterns of the growing youngster, and the environmental conditions and interpersonal relationships within which sex instruction becomes a part of the total process of personality formation. It is these principles which have guided the research teams in the development of our sex education manuals. It is our opinion that every sex education project should be guided by a carefully formulated *philosophy of sex education*.

Why is sex education important?

In view of the millions of words that have been written, the hundreds of institutes and workshops offered all over this continent, and in view of the lectures, radio programs, and television dialogues that have literally flooded our senses with facts and figures, appeals and warnings, it might seem a bit naive to ask the question: Why is sex education important? One of the most important reasons, and one easily overlooked, is that there is so little of it. We all know that parents are distressingly delinquent in this regard, that the Churches offer programs that fall far short of meeting the needs of young people. This of course is more a statistical than a philosophical or educational answer, - sex education programs are needed because there are so few good ones available. But what is there about sexual development, sexual experience, sexual relationships or sexual behavior that makes sex education so important? What is there about human personality and interpersonal relationships that make it important? What is there about adulthood and family life that make it important? Is sex education necessary to safeguard the moral, religious, spiritual, and social welfare of the adolescent and the young adult? Is sex basically a moral question? or is it a pragmatic one which seeks to avoid the pitfalls of unwanted pregnancy, venereal disease, or illicit relationships? Is sex *sui generis* or is it inseparably bound up with love, commitment, and fidelity?

These are deeply serious questions that should be taken into account in the formulation of a philosophy of sex education as well as the development of a sex education program. Those who would link sex with morality and religion, and interpret it as sinful outside of the marital relationship, tend strongly to regard sex education as the responsibility and the prerogative of the parents. Conversely, those who regard sex and its development as natural phenomena will tend to see it as amenable to the educational process, in much the same way that intellectual, emotional, and social development are natural phenomena to be guided, enriched, and perfected by the educational process. In a very real sense, it can be argued that unless sex is divorced from morality, and the constant threat of sinfulness, guilt, shame, and self-rejection, some developmental harm must inevitably result. We might express it this way: Unless we demoralize sex we are very likely to demoralize the young person. This aphorism is not offered as a rationalization for premarital or extramarital sex behavior, but as a strong reminder that the reactions to sex behavior and relationships can cause considerable psychological damage unless sex education helps to create safeguards against it. Our philosophy of sex education must be aimed at integrating the reality and the phenomena of sex into the mainstream of human events, human relationships, human characteristics, and human responsibilities, *for self and others*, in such a way as to create a *mature sexual personality* that can assume the mantle of marriage and of family life in an effective and productive manner.

For the young person, sexual behavior should be divorced from sinfulness but not from wrongdoing. It should be united to love, but should not be rationalized as an instrument of love. It should be integrated with moral principles but not distorted or destroyed by them. It should be exploited as an instrument of growth but not as a weapon for self-aggrandizement. It should be used for true self-realization but not for false self-identity. As teachers, we should instruct young people in the promises of psychosexual fulfillment without minimizing the potential threat of sexual indulgence to the physical, psychological, moral, and social well-being of the personality. Like hunger and thirst, sex is a powerful drive. Used well and wisely, these drives can contribute a great deal to the welfare, growth and self-realization of the human person; used poorly, any one of them can lead to its destruction. It is the failure to integrate sex into a healthy *philosophy of action* that can bring about a person's downfall rather than self-expression. These are the things a young person must come to know, and principally through the educational process.

The HOW of Sex Education

Divergent viewpoints on sex education. For countless years it was assumed, and argued vociferously, that sex education belonged in the home and was the sacred prerogative of the parents. Even as late as a week ago echoes of this ancient doctrine could be heard rumbling out of Washington, D.C. where an interfaith meeting of prominent educators reaffirmed this sacred trust. No one would argue against the principle that parents have a deep and inescapable obligation to help their children move from sexual immaturity to psychosexual and psychosocial maturity. But, unfortunately, parents have often abdicated this responsibility with small regard for either their obligation or for the welfare of their children. All of the statistics show conclusively that not much more than 15 percent of parents fulfill this responsibility to their children.

Society in its own way has condoned this abdication. It has tacitly approved divorce and separation, and thus put its stamp of approval on the breakup of the family whereby sex education becomes impossible. It has fostered the ideal of public education for all to the point where the role of the family has diminished to a vanishing point. It has encouraged the Montessori system of education, kindergarten classes, nursery schools, and baby-sitting operations that have all but removed the child from the home at all stages of development. It has encouraged the ideal of the working mother who obviously cannot be at home to instruct her children at the same time that she is in the market place helping to support the family or to create greater affluence. It has invested the teacher with an aura of omnipotence in all things, so that in truth she (or he) becomes a surrogate parent. It has provided classrooms and laboratories, tools and equipment, scholarship monies and educational programs for countless persons striving to enter the professional fields of teaching and counseling so that a plethora of obligations, invested by nature in the parents, can be transferred to the academic situation. Expressed in the briefest form, parents and society have collaborated in a program of abdication that has deprived the home of much of its formative powers and have taken away to a large extent its educative responsibilities. Thus, along with many other formative privileges, the school has had to assume responsibility for the sex education of the child.

The teacher and the expert. This interpretation of the shifting of responsibility for the education of the child in matters of psychosexual development does not necessarily mean that the responsibility has to be assumed by the classroom teacher. This is done perhaps in the majority of school systems where sex education is available, but that does not mean it is the most effective procedure. In some school systems a panel of experts has been formed that travels from one school to another and presents in systematic form, with the help of selected educational materials, the information each child needs to have in order to cope with psychosexual development at his particular age level. This method has the advantage of exploiting expertise in the areas of sexual development, behavior, and relationships, but obviously at the expense of formalizing an educational process that needs the warmth, understanding, acceptance, and friendliness of the ordinary classroom teacher, who can function more effectively as a surrogate parent than can a team of experts.

The danger of sex education by experts resides in the very fact that they are experts. Who wants to go to a physician or to a psychologist to find out if soul-kissing is allowable or if vaginal stimulation will produce pregnancy? For all of our current-day objectivity, sex is still a deeply personal, intimate, and even sacred aspect of life that many young boys and girls do not wish to share with strangers. This is a problem that needs a great deal of exploration and testing. I do not believe that at the present time we have any definitive answers to offer to the teaching profession regarding the efficacy of one system of presentation as against another. However, we can certainly agree that teachers selected for the sex education of children should be chosen with the utmost care in terms of knowledge, teaching skills, academic preparation, and personality factors that will come together in the teacher-student relationship so as to have the most wholesome and productive influence on the boys and girls who hunger for knowledge and development.

The determinants of sex education. Finally, we come to an extremely broad and complex question that has been asked many times and answered in many different ways. What are the determinants of effective sex education? At what age level should we begin, whether as parents or as teachers? When is the child ready for certain types of information? How should it be presented? Are girls different from boys? Should the sexes be segregated for purposes of sex instruction? Is verbal presentation enough? Should auxiliary materials, such as slides, films, and charts be used to illustrate and embellish verbal presentation? What do children of different age levels want to know? What do they need to know? How can we distinguish the primary from the secondary aims of sex education?

These are only a few of the questions that are suggested by the challenge of an effective sex education program. Time does not permit an excursion into this complex area; but at least we can formulate the questions and then set about determining the answers through discussion, exploration, and research. Certainly as we have already indicated, there is ample literature and other materials available for the energetic teacher or scholar who wants to find the answers to these questions. Sex education is a broad field, a fascinating field, a challenging field, and a rewarding one. If we add up the countless hours of anguish, of guilt and shame, of unnumbered pregnancies, of countless unhappy marriages, and the growing number of victims of venereal disease, that could have been prevented by an adequate program of sex education, then certainly we will become acutely aware of what these programs can mean to our growing children and our maturing adolescents.

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PRESIDENT'S REPORT

Stewart E. Armstrong, Superintendent

Ontario School for the Blind
Brantford, Ontario, Canada

Eight years ago in Donelson, Tennessee, my election as a director provided the opportunity and privilege of service to AAIB. There followed a term as second vice-president highlighted by the arrival in Watertown of the programs, printed in Canada, in time to be given out as souvenirs at the conference adjournment. Two years as your first vice-president were climaxed in Salt Lake City where I was greatly honoured by being named your president.

The years, particularly these last two, have flown by all too quickly and now it is my very real pleasure to welcome a most encouragingly large registration of our membership to the third conference on Canadian soil in our 105 year history of fruitful existence.

Although history can be interesting, long reports can be tedious but I feel a responsibility to tell you some of what has been accomplished in the biennium just ending and a desire to give some richly deserved credits.

Perhaps the most exciting event of these last two years in terms of the future development of our Association was the implementation of board policy to plan and conduct Regional Conferences. November 10 and 11, 1967, 300 registered at Harrisburg and 97 at Philadelphia for concurrent regional conferences. All persons interested in the education of the visually handicapped in the northeastern United States and Ontario were invited to Harrisburg while our houseparents centered their activities at the Overbrook School. Congratulations and appreciation are due Elinor Long, Superintendent David Olsen, Vice-President Bill English and Executive Secretary Paul Thompson. These four are eligible now to join the distinguished list of members who have pioneered with new ideas. Our first regional conference was an unqualified success and others are being planned for the off-convention years.

I recognize that my nomination for the title "High-light of the Biennium" is open to challenge and hasten to offer equal status to another board policy which was implemented last year. To Northern Illinois University goes the honour of having the first AAIB Chapter aptly named Alpha Chapter. Hard on the heels of this pioneer movement within our Association was the formation of the Utah Chapter in Ogden, Utah - our second. Several others are just about ready to make announcements. To these two and those which follow - congratulations and happy progress!

Having directed your attention to a high point selected from twenty-four busy months and immediately indicating another innovation to place beside it, you won't be surprised if I now move these two over to share the spot-light with a third. In late June, 1967, the Board of the International Journal for the Education of the Blind arranged to dissolve its articles of incorporation and "The Journal" became "Our Journal". On July 1, 1967, your Board appointed a Publications Board with many responsibilities - the chief one being the publication of the Journal. This very fine publication, which many of you always considered was ours, now really is. Our thanks to our Publications Board - pioneers also if you wish - and to the new editor, Dr. Natalie Barraga, and may you all pledge your support and encouragement.

Brief mention, out of all proportion to the work done and the results accomplished, must be made of Career Days, jointly sponsored by AAIB and AFB, held at Overbrook in Philadelphia, March, 1967, in Nebraska City, April, 1967, and in Ogden, Utah, October, 1967.

Arising seemingly as a natural outgrowth of the series of Career Days we have sponsored is the Guidance Counsellors' Institute planned for November 11 - 15 in Austin, Texas. I would assure you that in this case appearances are certainly deceiving. This Institute is the culmination of ideas which came out of our AAIB Guidance Workshop. These were carefully nurtured by Paul Thompson and co-operatively and soundly developed. We see in this project, which as Rehabilitation Services Administration sponsorship, the beginning of an on-going program with ever-widening benefits for our visually handicapped youth.

Earlier this morning you were asked to approve the report of the

Braille Authority. I would draw attention to the fact that as of January 1, 1967, the Braille Authority, appointed jointly by the presidents of AAIB and AAWB, was increased in membership from three to five and, as of January 1, 1968, an Advisory Council to the Braille Authority, with a membership of twelve respected leaders and educators in our field, was appointed by the two presidents with the approval of their respective boards. It is our belief that these two steps will have far-reaching effects. We have strengthened the Braille Authority and the Advisory Council will give breadth, depth and significance to its work.

As your president, and by board direction, I appointed an Association Name Change Study Committee charged with the responsibility of evaluating previous studies, examining current trends and developments in our field, sampling membership opinion and bringing a recommendation to the board. Again at board direction I advised our membership in a letter dated February 5, 1968, that after careful deliberation this much studied and oft debated topic was to be brought to a focus by means of a resolution to be proposed by your Board of Directors at the Toronto Conference June, 1968, which would amend our constitution and by-laws to change the name of our Association to ASSOCIATION FOR EDUCATION OF THE VISUALLY HANDICAPPED - A.E.V.H. You will be asked to vote on this resolution on Wednesday, June 26. I was encouraged by the fact that all but one of the letters received in response to this "notice of resolution" expressed full support both for the idea of a name change and for the name suggested. With the vote still to be taken I cannot report a name change but only that your board has studied the matter thoroughly, acted as it deemed best, and now requests your support.

NOTE: The resolution recommended by the Board was accepted after much debate and our Association has a new name!

You are all familiar by now with the mailings which you receive from time to time from the Library of Congress. These are part of a new service from our Washington office and are a by-product of a co-operative undertaking between our Executive Secretary's office and the Library of Congress and our members benefit without cost to AAIB.

Your Board has authorized that a study be made of our certification requirements, procedures and policies for the Certification of teachers and houseparents to be sure that these are keeping pace with changing conditions. It is also expected that the studies which have been made by our Certification Committee chaired by

Evelyn Rex will be continued to their completion and we have certification for teachers of orientation and mobility.

But even as I share with you what I feel are the outstanding accomplishments of the biennium, I must be fair and point out the very serious problems which face our organization. Over the years the record will show that our membership and the inspired leadership of the past have faced lean years and awesome challenge with courage and determination. I am confident that with your support the Board to be elected this week will be equal to the task. But make no mistake about it - grave decisions must be made and the active encouragement of all who have faith in our cause is essential.

Each and every member will recall my letter of May 7, 1968 to the membership advising of the resignation of R. Paul Thompson who had been our executive-secretary since November, 1965. Although Mr. Thompson's resignation was effective June 1 his new employers in the U.S. Office of Education granted him permission to be with us for this conference June 22 - 27. While every effort has been and is being made to secure a successor for Mr. Thompson we must proceed carefully and not move hastily. Even as our conference proceeds the solution to this situation is being sought. We feel very fortunate in that Mr. Isaac Clayton of the staff of the Maryland School for the Blind was willing to enter our employ June 10 as Acting Executive-Secretary to keep our office open and our services functioning. I regret very much that in relinquishing my presidency this week I also hand over an unsolved problem of such a magnitude.

I must not end my report without a reference to finances. We have never been a wealthy organization but our budget problems have reached a peak of acuteness this year. While there is real cause for concern we can see a balanced budget for next year but I would request most earnestly that each and every one of you consider yourself a part of the membership committee and begin right after this conference to look for prospective members and then actively promote membership. Only by increasing our membership and our sources of revenue will we be able to increase our services. We can, if we but will.

These have been two busy, and I feel productive, years for AAIB. I am deeply grateful for the opportunities I have had. Whatever I have put into the organization in terms of effort and leadership has been returned manyfold in many very real yet intangible ways. Whatever accomplishments there have been are due to the unstinting efforts of Paul Thompson, the constant support of the entire board and in many ways, but particularly with this conference, to the loyalty and industry of our own Brantford staff. My heartfelt thanks to all.

BRAILLE AUTHORITY REPORT 1968

Bernard M. Krebs, Chairman

The Jewish Guild for the Blind
New York, N.Y.

The organizational meeting of the Advisory Council to the Braille Authority was held in New York February 26th and 27th. The Council of twelve members and two representatives of the Authority held preliminary discussions relating to the scope of their respective duties and responsibilities.

Among the matters covered were: a review of the history and goals of the Authority; the specific responsibilities of the Council and Authority; the funding of both the Council and the Authority; the need and scheduling for research; the requirements for improved techniques for learning braille; the necessity for simplified instruction manuals for technical braille codes; the role of educators in testing newly developed braille codes; the funding for the publication of new or revised braille codes; and, the determination of the channels through which the general field of work for the blind can be kept informed as to the functions and activities of the Braille Authority.

The duties and responsibilities of the Braille Authority were defined to include: the development of braille codes; the standardization of their use; the evaluation of their efficiency; the study of their revision or refinement; and, the arrangement for their publication and dissemination.

The Council recommended the consideration and investigation of the following areas of research: the development of an adequate instruction manual for the teaching of braille to the adult blind; the preparation of a manual for the grade by grade introduction to the symbols of the Mathematics Code; the investigation of the value of modern technical devices in coping with educational procedures; the exploration of the possible use of typesetters' tapes for braille output; and, the study of techniques to make braille books and publications more attractive and legible. With so eminent a personage as Dr. Lowenfeld as Chairman, the Advisory Council whose membership is comprised of such prominent educators and leaders in service to the blind will assuredly add breadth and depth to the work and significance of the Braille Authority.

To carry forward the programming of these projects, a coordinating committee was established consisting of the elected officers of the Advisory Council: Dr. Berthold Lowenfeld, Chairman; Dr. Geraldine Scholl, Vice-Chairman; and Dr. Natalie C. Barraga, Secretary; and the officers of the Braille Authority: Mr. Bernard M. Krebs, Chairman; Mrs. Maxine B. Dorf, Co-Chairman; and Miss Marjorie S. Hooper, Secretary-Treasurer. This committee is to undertake a study of the respective duties, responsibilities, and functions of both the Council and the Authority.

Since adequate financing is essential to the functioning of the Advisory Council, the Braille Authority, and its Advisory Committees of experts and specialists, a Finance Committee of the Council was elected consisting of Dr. M. Robert Barnett, Chairman, Mr. Robert S. Bray, Dr. Douglas C. MacFarland, and Miss Josephine L. Taylor. Funds and grants are to be sought for the expense of all committees, for code publications, and for research projects.

During the past year, the Braille Authority has found it necessary to restrict its activities to the most pressing problems within the scope of its responsibilities. The limitation of service is due to inadequate funding. Despite the fact that the travel and living expenses of most members of the Authority and its Advisory Committees are underwritten by their employing agencies, an additional expenditure of more than $2,600.00 is currently required for unsponsored members and incidental expenses. With a total grant of only $1,000.00 from AAIB and AAWB and a carry-over in its treasury of $363.39, the Authority has confined its efforts and allotted its funds to the further development of the Mathematics Code while the work of other Advisory Committees has been kept in abeyance.

In developing the current Mathematics Code, primary emphasis was laid upon the inclusion of braille equivalents for the great variety of ink-print symbols required by transcribers in the production of braille texts. The rules were so designed that an individual with limited knowledge of mathematics could produce an accurate transcription of the ink-print copy. Because of the emphasis upon the needs of the transcriber, some rules, braille combinations, and symbols were found to be confusing to the braille reader and restricted the easy flow of information. The Authority and its Advisory Mathematics Committee are engaged in revising this code in order to increase its legibility and clarity for the braille reader without vitally disturbing its faithfulness to the ink-print presentation.

Three revisions are being recommended for the literary code.

1. In addition to the entry words of the standard collegiate dictionary, the use of contractions is to be extended to the common terms of a particular subject, such as botany, medicine, music, etc., if they are listed in a glossary or if their meaning is explained as they originally appear in the text.

2. Part-word contractions should be used rather liberally in dialect to carry out the style and flavor of speech.

3. The technique of including note in an indented form after the paragraph to which they refer has proven very effective in textbooks. The same format is recommended for literary texts so that a note can be read or skipped at will without the necessity of searching at the back of the volume.

The prospect for the development of a braille code for chemistry is at long last in view. It is a pleasure to report that the Seeing Eye Foundation has graciously provided a grant to the American Printing House for the Blind to carry forward this important project.

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE AAIB

The following amendments to the Constitution and By-laws of the American Association of Instructors of the Blind were adopted by the Conference, June 26, 1968:

Article 1 of the Constitution was amended to read as follows: "This Association shall be known as the 'Association for Education of the Visually Handicapped'."

Section V of the By-Laws was amended to include the following addition: "h. Long-range Planning Committee: This committee will develop recommendations relating to future policies, programs, and activities of the association."

Section 9 of the By-Laws was amended to read as follows: "9. A general budget shall be adopted by the Board of Directors at its annual meeting. The budget shall be administered by the Executive Secretary with the approval of the Secretary-Treasurer. The Secretary-Treasurer shall report on the physical operations of the Association at the biennial conference."

NECROLOGY REPORT, 1968

Francis M. Andrews

Superintendent, Retired,
Maryland School for the Blind

Once more we pause to pay homage to those members and former members of this Association who, in many instances, gave a great portion of their lives for the betterment of blind youth. To those of us who knew them and worked with them they were an inspiration.

> "Thou art the Truth, thy word alone
> True wisdom can impart.
> Thou art the Way, the Truth, the Life
> Grant us that way to know,
> That truth to keep, that life to win."

The following have died since our last meeting:

California		
Mr. Harry Blaha - Mobility Projects		March 27, 1968
Canada - Ontario School for the Blind		
Jean Babb - Teacher	1927-1963	Oct. 4, 1966
Agnes G. MacGillwray - Teacher	1921-1962	April 21, 1967
Colorado		
Helen Baker - Teacher	1953-1967	Oct. 25, 1967
Connecticut - Oak Hill School		
Dr. Rockwell Potter - Board Directors	1907-1967	May 15, 1967
Illinois - Braille and Sight Saving School		
Louis Rodenberg-Supt. Braille Prtg.Shop	1913-1963	Nov. - 1966
Frauncie Moon - Librarian	1913-1960	Dec. - 1967

Indiana - School for the Blind		
Mabel Leive-Head of Music Department	1931-1960	Dec. 13, 1967
Iowa Braille and Sight Saving School		
Mrs. Rose Sheldon - Housemother	1956-1963	Feb. 8, 1968
Mrs. Teresa Belknap - Housemother	1948-1955	Nov. 14, 1967
Louisiana State School for Blind Negroes		
John Hopkins Theus - Teacher	1925-1955	Feb. 8, 1967
New York Lavelle School for the Blind		
John Marinuzzi - Teacher	1923-1968	Nov. 25, 1967
New York State School for the Blind		
Michael Goldberg-Physical Education	1916-1958	Nov. 25, 1967
Mrs. Bertha Smith - Housemother	1947-1958	June 22, 1967
Maryland School for the Blind		
Peter E. Balter - Teacher	1928-1966	Nov. 6, 1966
Dr. Harvey Robinson-Psychologist	1958-1966	Sept. 7, 1966
Miss Marion McClintock-Housemother	1956-1965	Apr. 24, 1967
William T. Shackelford - Jr. Director	1936-1967	Mar. 9, 1967
Myrtle Dean - Teacher	1948-1965	Apr. 22, 1968
Massachusetts Dept. of Education		
Serina Cummings - Supt., Special Ed.	1952-1963	January, 1968
John Dupress - M.I.T.		Dec. 29, 1967
Massachusetts - Perkins School for the Blind		
Mary Esther Sawyer - Librarian	1904-1947	June 1, 1967
Florence Barbour - Teacher	1931-1950	Aug. 23, 1967
Mrs. Marjorie Beal Morey-Teacher		Oct. 9, 1967
Beverly Brown - Teacher	1962-1966	Oct. 16, 1966
Eleanor J. Howe - Teacher	1963-1967	May 5, 1967
Missouri School for the Blind		
Montague Harvey - Teacher	1943-1968	June 19, 1968
North Carolina - Governor Morehead School		
Kate Tyner - Housemother	1922-1953	July, 1967
Mrs. Sibyl B. Horne - Housemother	1963-1967	January, 1968
Ohio School for the Blind		
Ann Haworth - Teacher	1940-1967	Nov. 13, 1967
Louise L. Clapp - Recorder		Oct. 17, 1967

Pennsylvania - Overbrook School		
Elsie B. Cowgill - Teacher	1914-1960	July 9, 1967
Dr. Harold Gilbert - Music Director	1942-1947 1960-1968	Mar. 29, 1968
Pennsylvania - Royer Greaves School		
Dr. Jessie Royer Greaves - Founder and Director	1921-1967	June 21, 1967
Mrs. Dorothy Phillips - Teacher	1958-1968	June 6, 1968
Mrs. Edith B. Tasker	1953-1963	Unknown
Pennsylvania - Western Pennsylvania School		
Virginia Hoff - Teacher	1923-1960	Sept.15, 1967
Howard Leibeck - Finance Officer	1958-1968	Jan. 15, 1968
Gladys Roxbury - Housemother	1956-1964	1967
Anna Riffle - Housemother	1955-1962	July 4, 1967
South Carolina School for the Blind		
James Fowler - Teacher	1932-1967	May 17, 1967
South Dakota School for the Blind		
Walter A. Hack - Superintendent	1953-1967	Dec. 30, 1967
Virginia State School at Hampton		
Robert Ridley - Teacher	1954-1967	May 17, 1967
State of Washington Public Schools		
Victor Hass - Teacher	1964-1967	Feb. 14, 1967
West Virginia State School		
Rebecca Dailey - Teacher	1941-1947	March 5, 1968
Wyoming Public Schools		
Walter Stachon - Counselor	1966-1967	March 19,1967

We also honor Dr. Jacobus tenBrock of the National Federation of the Blind
Colonel Edwin A. Baker of the Canadian National Institute for the Blind
Helen Keller of world wide fame
Sidney B. Cohen, Executive Secretary A.A.W.B.

May we stand for a moment of Silence.

REPORT OF THE NOMINATING COMMITTEE

Herbert Wolfe, Chairman

Maryland School for the Blind

The Nominating Committee submitted the following slate of candidates for office in the Association for Education of the Visually Handicapped for the 1968 - 1970 Biennium:

OFFICERS

President
    Mr. William H. English
    Principal, Department of the Blind
    Virginia School for the Deaf and Blind

First Vice-President
    Mr. Carl J. Davis
    Head, Department of Psychology and Guidance
    Perkins School for the Blind

Second Vice-President
    Mr. Lee Jones
    Superintendent, Georgia Academy for the Blind

Secretary - Treasurer
    Mrs. Mary K. Bauman
    Director, Personnel Research Center

Immediate Past President
    Mr. Stewart E. Armstrong
    Superintendent, Ontario School for the Blind

BOARD OF DIRECTORS

Dr. Natalie Barraga
Coordinator, Program for the Visually Handicapped
University of Texas

Miss Gloria Colovini
Education Materials Center for the Visually Handicapped
Chicago, Illinois

Mr. Leland C. Sanborn
Superintendent, New York State School for the Blind
Batavia, New York

Mr. Robert McQuie
Counselor, Missouri School for the Blind

Miss Dorothy Misbach
Consultant, Education of the Visually Handicapped
California State Department of Education

Respectfully submitted,

Lou Alonso
Mae Davidow
Maurice Olsen
Laura Zetsche
Herbert Wolfe, Chairman

The first reading of this report was given Monday, June 24, 1968; the second and final reading was given Wednesday, June 26, 1968, after which additional nominations for officers and directors were requested from the floor. None was made however. Each of the above officers and directors was accepted and elected by acclamation.

FINANCIAL REPORT AND 1968 BUDGET

The following is a summary of the 1967 financial standing of the American Association of Instructors of the Blind:

Balance Sheet as of December 31, 1967

Assets

Cash in banks, checking and savings accounts		$ 12,611.24
Investments		13,441.96
Office Furniture and Equipment, valuation	3,980.96	
Less Accumulated Depreciation	511.98	3,468.98
TOTAL ASSETS		29,522.18

Liabilities and Fund Balances

General Fund	$ 10,598.80
Special Purpose Funds (Life Membership, Special Projects, Ways and Means Contest)	14,087.31
Restricted Funds (ICEBY, Conference, and Publications)	4,836.07
TOTAL LIABILITIES AND FUND BALANCES	29,522.18

Receipts and Disbursements, Year ending December 31, 1967

General Fund Balance, January 1, 1967	$ 7,030.04

Receipts

Membership Dues (Individual, Corporate, Agency, Parent Group, Student, Contributing)	32,617.19
Other Income (Investment, etc.)	1,213.37
Total Receipts	33,830.56

Disbursements

Salaries, taxes and Employee Benefits	19,065.30	
Travel (Executive Secretary and Board)	759.95	
Office Expense	5,599.94	
Professional Activities	9,155.27	34,580.46

Budget for Calendar Years 1968 and 1969

Anticipated Expenses

Salaries, taxes and Employee Benefits		$ 21,305
Travel (Executive Secretary and Board members)		1,500
Office Expense		6,105
Professional Activities		
W. C. W. B.	$ 100	
Braille Authority	500	
Committee Expenses	1,000	
Workshop Expenses	250	1,850
Transfer to Publications		8,150
Total Operating Expenses		38,910